VISTA-100

COMMERCIAL FIRE AND BURGLARY
PARTITIONED SECURITY SYSTEM
with SCHEDULING

INSTALLATION INSTRUCTIONS
and
PROGRAMMING GUIDE

® **ADEMCO**

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
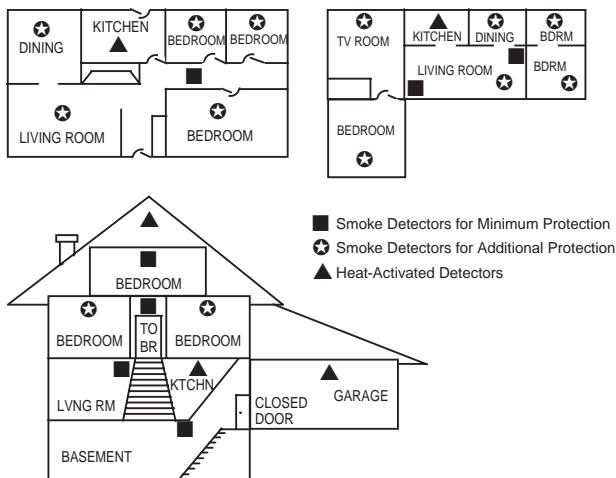
UL This control complies with NFPA requirements for temporal pulse sounding of fire notification devices.

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).

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How To Use This Manual

This manual is written to accommodate both the new and the experienced installer of ADEMCO products. The information contained in this manual is presented in the following order.

- A general description of the entire system
- The wiring and physical setup of the hardware
- Programming instructions (a blank pullout programming form is included)
  Note: Without an understanding of the programming methodology, you will not be able to perform the required programming successfully. We therefore urge you to read Section 18: Mechanics of Programming *before you do any programming.*
- System testing

This manual uses various icons to denote critical notes and technical tips to assist you with the installation of this system. You will see these icons in the left margin next to significant information. The icons and their meanings are discussed in the following section.

Conventions Used in This Manual

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

NOTES AND WARNINGS:

UL A UL note includes specific information that must be followed if you are installing this system for a UL Listed application.

✓ A checked note includes information that you should know before continuing with the installation, which, if not observed, could cause operational difficulties.

⚠ This symbol warns of conditions 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.

SPECIAL TEXT:

✶00 **INSTALLER CODE**
In the text of this manual, basic programming fields are indicated by a "star" [✶] followed by the data field number (and its title, in many cases).

Enter Zn Num. (000 = Quit)

In the text of this manual, interactive programming prompts are shown in a single-line box (e.g., #93 Menu Mode for Zone Programming).

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

General Description

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In This Section

♦ *General Overview*

♦ *System Features*

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General Overview

The VISTA-100 is an 8-partition, UL Listed Commercial Fire and Burglary control panel that supports up to 87 zones using basic hardwired, polling loop, and wireless zones. It also includes zones for supervision of bells, phone lines, keypads, RF receivers, and relays. In addition, the VISTA-100 control panel offers scheduling capabilities and allows certain operations to be executed by pressing a single button.

System Features

The major system features are outlined below.

Basic Hardwired Zones

Provides 8 style B hardwire zones with the following characteristics:

- End-of-line resistor (EOLR) supervision (optional for zones 3-8) supporting normally open (N.O.) or normally closed (N.C.) sensors
- Individually assignable to one of 8 partitions
- Up to 16 2-wire smoke detectors each on zones 1 and 2 (32 total)
- 4-wire smoke or heat detectors on zones 1-8 (power to 4-wire smoke detectors must be supervised with an end-of-line (EOL) device)
- Up to 50 2-wire latching glassbreak detectors on zone 8
- Individually assignable to bell outputs and/or aux. relay

Optional Expansion Zones

Polling Loop Expansion

Supports up to 79 additional hardwire zones using a built-in polling (multiplex) loop interface. Current draw can total up to 128mA. Polling loop zones have the following characteristics:

- Must use Remote Point Module (RPM) devices
- Supervised by control panel
- Individually assignable to one of 8 partitions
- Individually assignable to bell outputs and/or aux. relay

Wireless Expansion

Supports up to 63 wireless zones using 4281 type RF receiver; or 87 wireless zones using 5881 type RF receiver (fewer if using hardwire and/or polling loop zones). Wireless zones have the following characteristics:

- Supervised by control panel for check-in signals (except certain nonsupervised transmitters)
- Tamper protection for 5800 Series supervised transmitters
- Individually assignable to one of 8 partitions

- Individually assignable to bell outputs and/or aux. relay

UL   Wireless devices are not permitted in UL Commercial Burglary installations. UL Listing of the 5808 Smoke Detector for Commercial Fire installations is pending·

For specific information regarding the number of wireless zones supported by each RF receiver, see *Section 8: Wireless Expansion*.

Supervisory Zones

Provides additional zones for supervision of all peripheral devices such as keypads, RF receivers, and relay modules, as well as for system zones (bells, dialers (telephone lines), earth ground, keypad panics, etc.) and individual relays. Zone assignments are as follows:

Individual Relay Zones	601-616
Peripheral Device Zones	800-831
System Zones	970-999

 (See *Section 20: Zone Index* for a full explanation of these zones and specific zone assignments.)

Maintenance Signal Support

The control monitors maintenance signals from certain smoke detectors (5805, 4192CPM, 4192SDM, 4192SDTM). Maintenance signals are triggered when a smoke detector gets dirty, and indicate that the detector should be cleaned or replaced. If a detector maintains a high- or low-sensitivity condition for longer than 24 hours, the control sends a dialer report (trouble message for non-Contact ID reports; Event Code 385 or 386 for Contact ID reports), makes an event log entry, and displays HSENSxxx or LSENSxxx at the keypads (xxx = zone number).

NOTE: 5808 Wireless Smoke Detectors report high sensitivity regardless of whether the condition is actually high sensitivity or low sensitivity.

8 Partitions

Provides the ability to control 8 separate areas independently, each functioning as if it had its own separate control. Partitioning features include:

- A "Common Lobby" partition (1-8), which can be programmed to arm automatically when the last partition that shares the common lobby is armed; and programmed to disarm when the first partition that shares the common lobby is disarmed
- A Master Partition (9), used strictly to assign keypads for the purpose of viewing the status of all 8 partitions at the same time (master keypads)
- All zones (except fire) are assignable to one of 8 partitions
- Fire zones must be assigned to Partition 1
- Keypads are assignable to one of 8 partitions or to Master Partition 9, to view system status
- Ability to assign relays to one or all 8 partitions
- Ability to display fire and/or burglary and panic and/or trouble conditions at all other partitions' keypads (a selectable option)

- Certain system options are selectable for each partition, such as Entry/Exit Delay and subscriber account number

User Codes

Accommodates 128 user codes, all of which can operate any or all partitions. The following characteristics must be assigned to each user code:

- Authority level (Master, Manager, or several other Operator levels)

- Opening/closing central station reporting option

- Which partitions the code can operate

- Global arming capability (the ability to arm all partitions to which the code has access in one command)

- Use of an RF (button) to arm and disarm the system (RF key must first be programmed into the system)

Peripheral Devices

Supports up to 31 addressable devices, which can be any combination of keypads (6139/6139R), RF receivers (4281/5881), relay modules (4204/4204CF), and 4285/4286 VIP Module. Peripheral devices have the following characteristics:

- Each device is set to an individual address (physically) according to the device's instructions

- Each device is enabled in the system using the Device Programming Mode (see "Device Programming" in *Section 22: #93 Menu Mode Programming*)

At least one 2-line alpha keypad (6139/6139R) must be connected to the system for programming (if using keypad programming) and must remain connected to the system in order to allow the primary user to program additional user codes into the system at a later time.

Keypad Panic Keys

Accommodates three keypad panic keys: 1 + [✳] (A), [✳] + [#] (B), and 3 + [#] (C).

- Designated as zones 995 (1 + [✳]), 996 (3 + [#]), and 999 ([✳] + [#])

- Activated by wired and wireless keypads

- Activated and reported separately by partition, distinguished by subscriber account number (or partition number if Contact ID reporting is used)

Keypad Macros

Accommodates one keypad macro command per partition (each macro is a series of keypad commands), which can be assigned to the "D" key on each partition's keypads. This means, for example, that by pressing the "D" key, the system can be programmed to log onto another partition, bypass zones 2 and 3, and arm that partition in the AWAY mode (See *Section 28: Keypad Functions*). Characteristics of keypad macros are:

- Assignable to the "D" key by partition

- Can each be 16 characters (keystrokes) in length

Bell Outputs

Provides two style-Y supervised bell outputs on the control panel itself. A 4204CF Relay Module can supply two additional style Y supervised bell outputs.

Auxiliary Relay

Provides a built-in Form C relay which can be used for one of the following purposes:

- Alarm activation
- Trouble/supervisory activation
- 4-wire smoke detector reset
- Battery-saving feature (disconnects power from noncritical loads 4 hours after AC power loss)

Optional Output Relays

Accommodates the use of 16 relay outputs using ADEMCO's 4204 and 4204CF Relay Modules. Each 4204 module provides four Form C relays for general-purpose use. Each 4204CF provides two style Y supervised bell outputs. Relay outputs have the following characteristics:

- Can be programmed to activate in response to system events
- Can be programmed to activate using time intervals
- Can be used for additional style Y supervised bell outputs (4204CF only)
- Can be activated manually using the #70 relay command mode
- Can be supervised by the control panel (zones 601-632)
- Can each have an alpha descriptor assigned to it

Optional VISTA Interactive Phone Module

Supports the ADEMCO 4285/4286 VIP Module. This allows the security system to perform the following tasks:

- Obtain system status information
- Arm and disarm security system
- Control relays

UL The 4285/4286 VIP Module is not UL Listed for use with the VISTA-100 control panel.

Access Control

If programmed, provides users with a command which activates a relay for 2 seconds to open access doors (e.g., lobby door). Each partition can be assigned an access control relay.

UL The access control function is not UL Listed for use with the VISTA-100 control panel.

Optional 24-Volt Power Supply

Compatible with the PS24 Power Supply Module, which supplies:

- Two 24VFW, 1.7A full-wave rectified, unfiltered outputs
- Used to power alarm notification appliances (sirens, strobes, etc.)
- Used to power auxiliary devices which can operate using full-wave rectified, unfiltered voltage

Optional Backup Dialer

Supports use of 5140DLM Backup Dialer for connecting to a second supervised telephone line.

Optional Keyswitch

Supports the ADEMCO 4146 Keyswitch on any one of the system's 8 partitions. If the keyswitch is used, zone 7 is no longer available as a protection zone.

Voltage Triggers

Provides a trigger connector whose pins change state for different conditions. Used with LORRA (Long Range Radio) equipment or other devices such as a remote keypad sounder, keyswitch Armed and Ready LEDs, or a printer to print the system's event log.

Event Log

Keeps a log of different event types (enabled in programming). The event log has the following characteristics:
- Stores a total of 224 events
- Can be viewed at the keypad or through the use of V-LINK software
- Can be printed on a serial printer using a 4100SM Module

Scheduling

Provides the following scheduling capabilities:

- Open/close schedules (for control of arming/disarming and reporting)

- Holiday schedules (allows different time windows for open/close schedules)

- Timed events (for activation of relays, auto-bypassing and unbypassing, auto-arming and disarming, etc.)

- Access schedules (for limiting system access to users by time)

- End User Output Programming Mode (provides 20 timers for relay control)

Communications Formats

Supports the following formats for the primary and secondary central station receivers:

- ADEMCO Low Speed (standard or expanded)

- Sescoa/Radionics

- ADEMCO Express

- ADEMCO High Speed

- ADEMCO Contact ID

Audio Alarm Verification Option

Provides a programmable Audio Alarm Verification (AAV) option which can be used in conjunction with an output relay to permit voice dialog between an operator at the central station and a person at the premises.

Requires the use of an optional AAV unit, such as Eagle Model 1241.

UL   The AAV unit, Eagle Model 1241, is not UL Listed.

Cross-Zoning Capability

Helps prevent false alarms by preventing a zone from going into alarm unless its designated cross-zone is also faulted within 5 minutes.

Exit Error False Alarm Prevention Feature

- System can differentiate between a regular alarm and an alarm caused by leaving an entry/exit door open. If not subsequently disarmed, faulted entry/exit zone(s) and/or interior zones will be bypassed and the system will arm.

- Generates an Exit Error report by user and by zone so the central station knows it was an exit alarm and who caused it.

Enhanced Fire Walk-Test Mode

Provides the installer the ability to test fire zones more quickly and reliably. The following features apply:

- Automatic test of all integrated RPM (polling loop) devices that have the automatic test feature

- Dynamic display of all fire zones that remain untested while a test is in progress

- Ability to log results (all fire zones tested and untested) in the system's event log

- Ability to report results (all fire zones tested and untested) to the central station

Built-in User's Manual and Descriptor Review

For end-user convenience, the VISTA-100 contains a built-in Users Manual. When you depress and hold any of the function keys on the keypad for 5 seconds, a brief explanation of that particular function scrolls across the alpha-numeric display.   In addition, you can display all programmed zone descriptors one at a time by pressing and holding the READY key for 5 seconds, then releasing it. This serves as a check for installers to be sure all descriptors are entered properly.

Improved Downloading Features

- Uploads and downloads at 300 baud, making upload/download speed fast.

- Uploads ECP devices, their physical addresses, programmed addresses, and firmware revision levels from the control.

Agency Listings

Fire

- UL864-NFPA 72 Local, Central Station, and Remote Station

Burglary

- UL609 Grade A Local Mercantile Premises and Mercantile Safe and Vault

- UL611/UL1610 Grades A, AA Central Station

- UL365 Grades A, AA Police Connect

Planning a Partitioned System

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In This Section

♦ *Theory of Partitioning*

♦ *Setting Up a Partitioned System*

♦ *Common Lobby Logic*

♦ *Master Keypad Setup and Operation*

. . . .

Theory of Partitioning

This system provides the ability to arm and disarm up to 8 different areas, each as if it had its own control. These areas are called partitions. Partitions are used when the user wants to disarm certain areas while leaving other areas armed, or to limit access to certain areas to specific individuals. Each user of the system can be authorized to operate all or only some partitions, and can be given a different authority level in each.

After you determine how many partitions you need, you can assign keypads, zones, and users to the partitions.

First, you must determine how many partitions are required (1-8). This must be done before anything can be assigned to those partitions.

Setting Up a Partitioned System

The basic steps to setting up a partitioned system are described below. If you need more information on how to program the prescribed options, see *Section 18: The Mechanics of Programming*, as well as each section's corresponding programming procedure.

1. Determine how many partitions will comprise the system (programmed in field 2*00).

2. Give each keypad a unique "address" and assign it to one partition. (#93 Device Programming Mode). You can also assign it to Partition 9 if you want to use "Master" keypad operation (see "Master Keypad Setup and Operation" later in this section).

3. Assign zones to partitions (#93 Zone Programming Mode). You must assign each zone to one partition. The zones assigned to a partition will be displayed on that partition's keypad(s).

You **must** assign all fire zones to Partition 1 to ensure that all Fire Test modes operate correctly.

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4. Confirm that zones are displayed at the keypad(s) assigned to the partitions to which the zones are assigned.

5. Assign users to partitions. You can give each user access to one or more partitions. If a user is to operate more than one partition and wants to arm/disarm all or some of those partitions with a single command, you must enable the user for "Global Arming" for those partitions when you enter user codes. A user with access to more than one partition

(multiple access) can "log on" to one partition from another partition's keypad, provided that program field 2*18: ENABLE GOTO is enabled for each partition to which the user will log on from another. You can select a partition as a "common lobby" partition. Other partitions can affect this partition by causing it to be armed or disarmed automatically (see "Common Lobby Logic" later in this section).

6. Enable the GOTO feature (program field 2*18) for each partition to which a multiple-access user can log on (alpha keypad only).

7. Program partition-specific fields (see *Section 21: Data Field Descriptions*).

Common Lobby Logic

When an installation consists of a partition shared by users of other partitions in a building, that shared partition may be assigned as the "common lobby" partition for the system (program field 1*17). An example of this might be a medical building in which there are two doctors' offices and a common entrance area. (See example that follows explanation.)

> ✓ ***Do not*** assign Partition 1 as the common lobby. All fire zones should be assigned to this partition to ensure that all fire test modes operate correctly.

The common lobby option employs logic for automatic arming and disarming of the common lobby. Two programming fields affect the way the common lobby will react relative to the status of other partitions. They are: 1*18 AFFECTS LOBBY and 1*19 ARMS LOBBY.

1*18 AFFECTS LOBBY (You must program this field by partition.)

Setting this option to 1 for a specific partition causes that partition to affect the operation of the common lobby as follows:

- When the first partition that affects the lobby is disarmed, the lobby will also be disarmed.

- The common lobby cannot be armed unless every partition programmed to affect the lobby is armed.

- Arming the last partition that affects the lobby will not automatically cause the system to attempt to arm the lobby.

1*19   ARMS LOBBY (You must program this field by partition.)

Setting this option to 1 for a specific partition causes that partition to affect the operation of the common lobby as follows:

- When the first partition that affects the lobby is disarmed, the lobby will also be disarmed.

- The common lobby cannot be armed unless every partition programmed to affect the lobby is armed.

- Arming the last partition that is programmed to arm the lobby will cause the system to automatically attempt to arm the lobby.

If any faults exist in the lobby partition, or if another partition that affects the lobby is disarmed, the lobby cannot be armed, and the message "UNABLE TO ARM LOBBY PARTITION" will be displayed.

You cannot program a partition to "arm" the lobby unless you first program it to "affect" the lobby. Enable field 1*18 before you enable field 1*19.

The following chart sums up how the common lobby partition will operate, depending on the options you set for another partition in fields 1*18 and 1*19.

1*18 Affects Lobby	1*19 Arms Lobby	Disarms lobby when partition disarms?	Attempts to arm lobby when partition arms?	Can lobby arm if other partitions are disarmed?
0	0	NO	NO	YES
1	0	YES	NO	NO
1	1	YES	YES	NO
	0	---ENTRY NOT ALLOWED---		

Example

Here is an example of how the lobby would react in a typical setup.
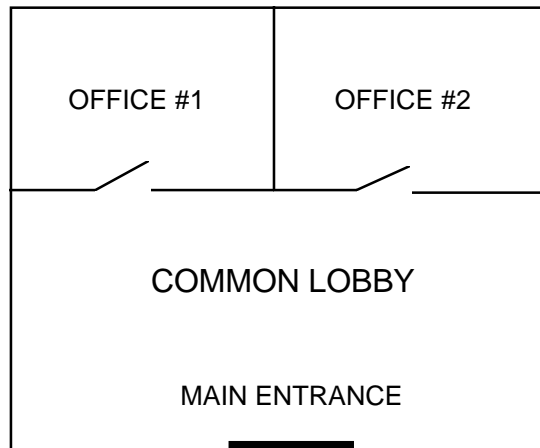
User #1 has access to Office #1 and the Common Lobby.
User #2 has access to Office #2 and the Common Lobby.

Office #1 is set up to affect the Common Lobby, but not arm it.
Office #2 is set up to affect and arm the Common Lobby.

For the purpose of this example, the word(s) in parentheses ( ) below show the current status of the other partition when the user takes the indicated action.

Sequence #1:

	Office 1	Office 2	Lobby Action
User #1:	Disarms	(Armed)	Disarms
User #2:	(Disarmed)	Disarms	No Change
User #1:	Arms	(Disarmed)	No change
User #2:	(Armed)	Arms	Arms

Sequence #2:

	Office 1	Office 2	Lobby Action
User #2:	(Armed)	Disarms	Disarms
User #1:	Disarms	(Disarmed)	(No change)
User #2:	(Disarmed)	Arms	No Change
User #1:	Arms	(Armed)	No Change

Notice that in Sequence #1, because Office #2 was the last to arm, the lobby also armed (Office #2 is programmed to affect and arm the lobby). In Sequence #2, the lobby could not arm when Office #2 armed, because Office #1, which affects the lobby, was still disarmed.

When Office #1 armed, the lobby still did not arm because Office #1 was not programmed to arm the lobby. User #1 would have to arm the lobby manually. Therefore, if users of a particular partition are expected to be the last to leave the building, you should program that partition to affect and arm the lobby.

How User Access Codes Affect the Common Lobby

Codes with "Global" Arming

If you give a code "global arming" when you define it (see *Section 27: User Access Codes*), the keypad will display an "ARM ALL?" or "DISARM ALL?" message when the user tries to arm or disarm the partitions to which he has access, from an alpha keypad. This allows the user to select the partitions to be armed or disarmed, eliminating the "automatic" operation of the lobby. Keep in mind, however, that if the user attempts to "arm all," and another partition that "affects" the lobby is disarmed, the user will not be able to arm the lobby, and the message "UNABLE TO ARM LOBBY PARTITION" will be displayed on the keypad.

Codes with "Non-Global" Arming

If the user arms with a non-global code, the lobby partition operation will be automatic, as described by fields 1*18 and 1*19.

Other Methods of Arming/Disarming

Lobby logic remains active when you arm or disarm a partition that affects and/or arms the common lobby in one of the following manners:

- Quick-Arm
- Keyswitch
- Wireless button
- Wireless keypad

Arming/Disarming Remotely

If you arm or disarm remotely through V-LINK downloading software, the lobby will not automatically follow another partition that is programmed to arm or disarm the lobby. The lobby must be armed separately, after arming all affecting partitions first.

Auto-Arming/Disarming

If scheduling is used to arm and/or disarm partitions automatically, the lobby partition will not automatically follow another partition that is programmed to arm or disarm the lobby. When scheduling, you must include the lobby as a partition to be armed or disarmed.

If you are auto-arming, make sure that the **Auto-Arm Delay** and **Auto-Arm Warning** periods (fields 2*05 and 2*06) combined are longer than that of any other partition that affects the lobby. This will cause the lobby to arm last.

Master Keypad Setup and Operation

Although this system has 8 actual partitions, it provides an extra partition strictly for the purpose of assigning keypads as "Master" keypads for the system.

Any keypad you assign to Partition 9 in #93 Device Programming Mode will be a "Master" keypad. A Master keypad reflects the status of the entire system (Partitions 1-8) on its display at one time. This feature is useful because it eliminates the need for a security officer to log-on to various partitions from one partition's keypad to find out where an alarm has occurred.

This is an example of a typical display:

```
SYSTEM  12345678
STATUS  RRNNAA*B
```

Possible status indications include:

A = Armed Away	M = Armed Maximum
S = Armed Stay	I = Armed Instant
R = Ready	N = Not Ready
B = Bypassed/Ready	* = Alarm Memory/Trouble present

To obtain more information regarding a particular partition, enter [*] + [Partition No.]

(i.e., *4). The keypad will display information for the partition you specified. In order to affect a particular partition, the user must use a code that has access to that partition. In order for a user to log on to Partition 9 to view the status of all partitions, that user must have access to all partitions. Otherwise, access will be denied.

This is an example of what would be displayed for a fault condition on Zone 2 (Loading Dock Window) on Partition 1 (Warehouse) when a user logs on from a Master keypad (a keypad assigned to Partition 9):

```
WHSE  DISARMED
HIT * FOR FAULTS
```

This is the normal display that appears at Partition 1's keypad(s). If you press [*] , you will see this display:

```
FAULT 02  LOADING
DOCK  WINDOW
```

Additional zone faults will be displayed one at a time. To display a new partition's status, press [*] + [Partition No.]. You will see the status of the new partition.

The "Armed" LED on a Master keypad will be lit only if all partitions have been armed successfully. The "Ready" LED will be lit only if all partitions are "ready to arm." Neither LED will be lit if only some partitions are armed and/or only some partitions are "ready."

The sounder on a Master keypad will duplicate the sound of the most critical condition that exists on any of the partitions. The priority of the sounds, from most critical to least critical, is as follows:

1. Pulsing fire alarm sounds

2. Steady burglar alarm sounds

3. Trouble sounds (rapid beeping)

You can silence the sounder by pressing any key on the Master keypad or a keypad on the partition where the condition exists.

A Master keypad uses the same panic buttons as Partition 1. Master keypad panics are sent to Partition 1, and will activate on Partition 1. Therefore, panics must be programmed for Partition 1.

False Alarm Reduction Features

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In This Section

♦ *General Information*

♦ *Exit Error Logic and Related Reports*

♦ *Recent Close Report*

♦ *Exit Delay Reset*

♦ *Cross-Zoning*

♦ *Call Waiting Defeat Logic*

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General Information

The VISTA-100 supports features that help prevent false alarms. Most false alarms occur when a user exits the premises, or when a zone goes into alarm due to environmental factors or because its resistance to the control is on the edge of acceptability. We call this condition a "swinger."

The following features prevent false alarms due to these circumstances:
- Exit Error Logic and related reports
- Exit Delay Reset
- Cross-Zoning

Exit Error Logic and Related Reports

UL   This feature is not suitable for use on a UL Commercial Burglary installation.

The Exit Error Logic feature is intended to reduce the incidence of false alarms due to exit doors left open after the exit delay has expired. If this feature is enabled in program field 1*20, the following will occur:

At the end of the exit delay, if a door is left open or an interior zone is faulted, the system will start the entry delay period, and will sound the bell(s), siren(s), and keypad sounders for the duration of entry delay. This gives the user time to re-enter the premises and disarm the system before exit error occurs.

If the user does not re-enter the premises and disarm the system, the system will bypass the faulted entry/exit and/or interior zone(s). The rest of the system will be armed. In addition, the following dialer reports will be sent to the central station, if you programmed them (in #93 Report Code Programming Mode):

- Exit Error by User (this is not sent if using ADEMCO High Speed format)

3-1

- Exit Error by Zone (this is sent as a regular alarm if you are using ADEMCO High Speed format)

- Bypass reports

Recent Close Report

The Recent Close Report notifies the central station that an alarm has occurred within 5 minutes of arming. You can program this report in #93 Report Code Programming Mode.

Exit Delay Reset

UL This feature is not suitable for use on a UL Commercial Burglary installation.

The Exit Delay Reset allows an operator to re-enter the premises to retrieve a forgotten item without triggering an alarm. This feature is enabled in program field 1*21.

When the panel is armed, the normal exit delay begins. After the user exits, and the door closes, the exit delay time is reset to 60 seconds. If, within this 60-second period, the entry door is re-opened, the panel will restart the exit delay sequence again, using the programmed exit delay time. This feature can only be activated once after arming.

Cross Zoning

UL This feature is not suitable for use on a UL Commercial Burglary installation.

The Cross-Zoning feature is designed so that a combination of 2 zones must be faulted within a 5-minute period to cause an alarm on either zone. This prevents momentary faults from causing an alarm condition. You can select 4 combinations, or "sets," of cross zones each, keeping in mind the following guidelines:

- Both must protect the same area

- Both must be in the same partition

- A fire zone must be crossed only with another fire zone protecting the same physical area (see note below)

You can program the four sets of cross-zones in data fields 1*22, 1*23, 1*24, and 1*25.

DO NOT cross-zone a fire zone with a burglary zone under any circumstance. A fire zone must only be crossed to another fire zone, and BOTH must be protecting the same physical area (no walls or partitions separating them). Consult NFPA 72 standard for exact spacing requirements. As a guideline, we recommend that spacing between fire cross-zones be no farther than 30 ft.

Conditions That Affect Cross-Zone Operation

- In the event of a continuous fault (lasting at least 5 minutes) on one of the paired zones, a fault on the second zone will cause an alarm immediately.

- If one of the zones in a pair is bypassed or has a zone response type set to 0, the cross-zoning feature will not apply.

- If an entry/exit zone is paired with an interior follower zone, be sure to enter the entry/exit zone as the first zone of the pair. This will ensure that the entry delay time is started before the follower zone is processed.

- If a relay is programmed to activate on a fault of one of the zones, the relay will activate without the other zone being faulted.

- If a relay is programmed to activate on either an alarm or trouble condition, both zones must trip before the relay will activate, and both zones must restore for the relay to deactivate (if the relay is programmed to deactivate on a Zone List Restore).

Call Waiting Defeat Logic

Although the Call Waiting Defeat Logic option does not directly prevent false alarms, it may prevent the central station from taking action on a potential false alarm. After the panel's initial call to report the alarm, the panel may attempt to make an additional call, perhaps for a cancel or a zone restore. If Call Waiting is not defeated, an operator at the central station attempting to contact the premises (to verify whether the alarm is valid) will hear the phone ringing indefinitely and have to dispatch security.

This option, enabled in program field 1*42, will attempt to defeat Call Waiting on the first outgoing call attempt to both the primary and secondary numbers. It does this by dialing a special sequence preceding the phone number (but after the PABX number). The panel will dial *70 if using TouchTone, and 1170 if using rotary.

The panel does not attempt to defeat Call Waiting on each call attempt, since the phone company may not complete the call if the sequence is dialed on a phone line that does not have Call Waiting.

Installing The Control

. . . .

In This Section

♦ *Mounting the Control Cabinet*

♦ *Installing the Cabinet Lock*

♦ *Grade A Mercantile Premises Listing*

♦ *Grade A Mercantile Safe and Vault Listing*

♦ *Installing the Control's Circuit Board*

♦ *Connecting the AC Transformer and Battery*

♦ *Panel Earth Ground Connections*

. . . .

Mounting the Control Cabinet

- 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.

- Before you mount the circuit board, remove the metal knockouts for the wiring entry that you will be using. DO NOT ATTEMPT TO REMOVE THE KNOCKOUTS AFTER THE CIRCUIT BOARD HAS BEEN INSTALLED.

Installing the Cabinet Lock

Use an ADEMCO No. N6277 Cam Lock and No. P3422-2 Clip for a universal commercial cabinet.

To install the cabinet lock, take the following steps:

1. Insert the key into the lock. Position the lock in the hole on the cabinet, 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.
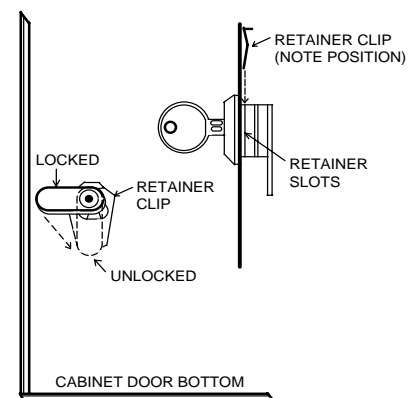
Figure 4-1. Installing the Lock

UL For UL installations which are intended to provide certificated burglary service, refer to the special requirements and the Cabinet Attack Resistance Considerations diagram below.

Grade A Mercantile Premises Listing

For a Grade A Mercantile Premises listing, you must do the following:

- The panel door must be supervised. Mount the clip-on tamper switch (supplied) to the cabinet's right side wall, as shown in the diagram below, and wire it to zone 6.

- Use a bell with a tamper-protected housing, such as the ADEMCO AB12. The bell housing's tamper switch and inner tamper linings must also be wired to zone 6.

- Assign zone 6 to a burglary partition. Program zone 6 for Day Trouble/Night Alarm (zone type 5) when only one burglary partition is used. Program for 24-Hr. Audible Alarm (zone type 7) when more than one burglary partition is used. Enable the Zone 6 Alternate Tamper Function (program field 3*17).

- Run all wiring between the bell and panel in conduit. Remaining wires do not need to be run in conduit.

- All wiring not run in conduit must exit from the knockout openings on the bottom or back of the cabinet.

- You must plug all unused knockouts using the disc plugs and carriage bolts (supplied), as indicated in the diagram below.

- Fasten the cabinet door to the cabinet backbox using the 18 one-inch Phillips-head screws (supplied) after all wiring, programming and checkout procedures have been completed.
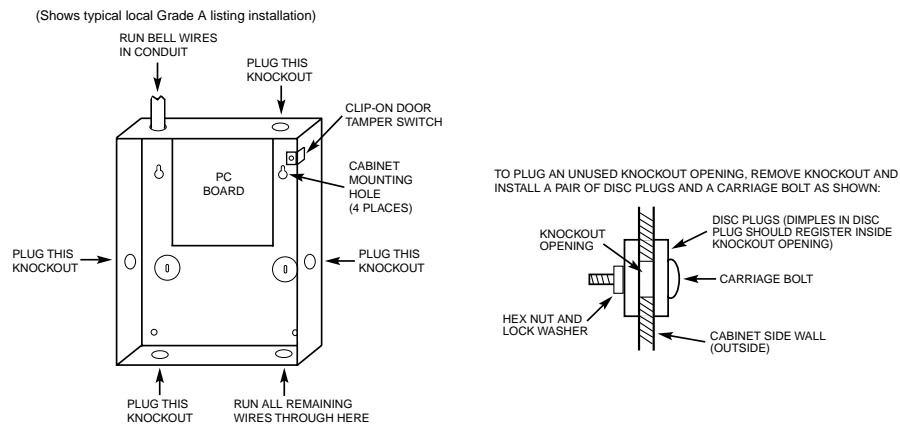
Figure 4-2. Cabinet Attack Resistance Considerations

Grade A Mercantile Safe and Vault Listing

For a Grade A Mercantile Safe and Vault listing, follow the instructions above for Mercantile Premises listing. In addition, do the following:

- Mount a shock sensor such as Sentrol No. 5402 to the control's backbox. Follow the manufacturer's instructions for proper sensor mounting. This sensor must also be wired to zone 6.

- For safe and vault applications, a UL Listed contact must be used inside the cabinet through one of the knockouts for pry-off tamper purposes. This sensor must also be wired to zone 6.

Installing the Control's Circuit Board

To install the control's circuit board, take the following steps and refer to the diagram below when mounting the PC board:

1. Hang the three mounting clips on the raised cabinet tabs. Make sure the clip orientation is exactly as shown in the diagram to avoid damage to the clip when you tighten the mounting screws. This will also avoid problems with inserting and removing 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 (see *Figure 4-3*).

3. Swing the base of the board into the mounting clips and secure the board to the cabinet with the accompanying screws.

Make certain that the mounting screws are tight. This ensures 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. Use the 2 loops on the left and right side walls of the cabinet for anchoring field wiring using tie wraps. These steps are important to minimize 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
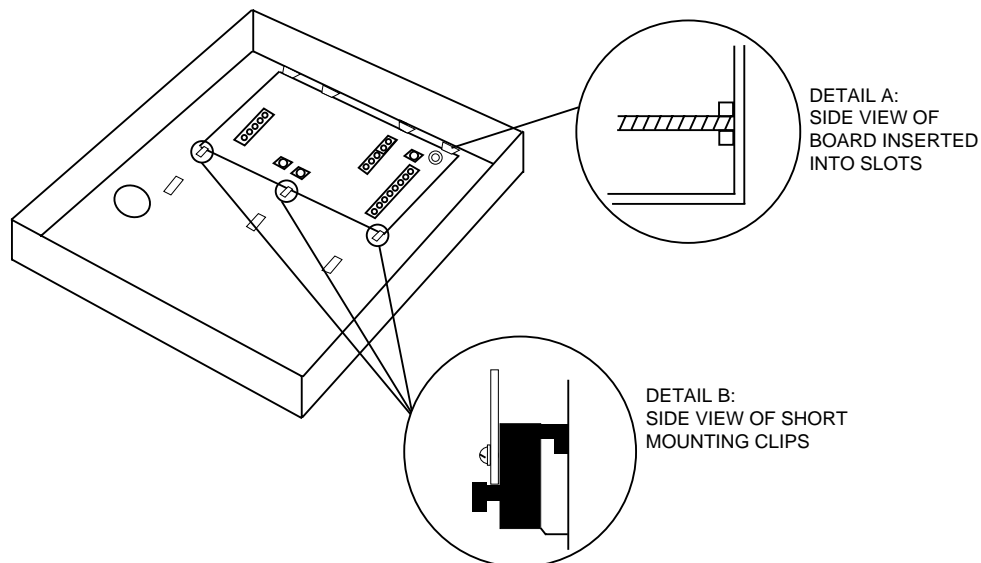
Figure 4-3. Mounting the PC Board

Connecting the AC Transformer and Battery

The VISTA-100 uses the 1451 Transformer, which must be hardwired into the premises' electrical system. Therefore, all zones and expansion modules should be wired according to each section's instructions *before* powering up the system for programming and testing. Refer to *Section 17: Final Power-Up Procedure* for specific instructions on how to connect the transformer and backup battery.

You can wire, program, and test each section individually by powering up temporarily for programming and then testing each section before final power-up.

Refer to *Section 17: Final Power-Up Procedure* for battery standby calculations and battery selection table.

Panel Earth Ground Connections

To ground the panel, take the following steps:

1. Connect the earth ground post inside the 1451 enclosure to a good earth ground (use grounding methods specified in the National Electric Code).

   Use a green nut (supplied) to secure the wire to the ground post. The earth ground wire should be the only wire under this nut.

2. Run a 16AWG wire from this post to the panel's earth ground terminal (terminal 30). Use a second green nut (supplied) to secure this wire to the ground post. This method of connection avoids ground loops that may occur when the 1451 and panel are connected to different earth ground systems.

The panel requires this connection in order for its lightning transient protection devices and earth ground supervision to function properly.

Installing The Keypads

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In This Section

♦ *Keypads That May Be Used*

♦ *Wiring to the Keypads*

♦ *Using a Supplementary Power Supply to Power Additional Keypads*

♦ *Mounting the Keypads*

♦ *Addressing the Keypads/Preliminary Checkout Procedure*

♦ *Programming Remote Keypads*

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Keypads That May Be Used

You may use the following keypads with the VISTA-100:

- Two-Line Alpha Display: 6139 (gray) or 6139R (red). (Check with local AHJ for approval of keypad color.)

- Up to 16 addressable keypads may be used in the system, independent of auxiliary power considerations. (You may need to use an auxiliary power supply if the 1 amp aux. output is exceeded.)

Wiring to the Keypads

To wire the keypads, take the following steps:

1. Determine the wire gauge you will need by referring to the Wire Run Length Table below.

2. Wire keypads to a single wire run or connect individual keypads to separate wire runs. The maximum wire run length from the control to a keypad, which is homerun back to the control, must not exceed the lengths listed in the table.

Wire Run Length Table	
Wire Gauge	**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 unshielded cable is run in conduit or if shielded cable is used).

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

3. Run field wiring from the control to the keypads, using standard 4-conductor cable with the wire gauge determined in Step 1.

4. If you are using only one keypad, it may be connected to either Keypad Port 1 or 2, and must be mounted on or within 3 ft. of the cabinet. If you are using multiple keypads, connect one to Keypad Port 2 and mount it on or within 3 ft. of the cabinet. Set the main keypad to an address of 00 (this address cannot be disabled in programming). You can mount additional keypads where desired, and connect them to Keypad Port 1 terminals 11, 12, 13, and 14, as shown in *Figure 5-1*. The keypad on Port 2 is electrically isolated from those on Port 1, and will continue to function even if wiring problems prevent the other keypads from working properly.
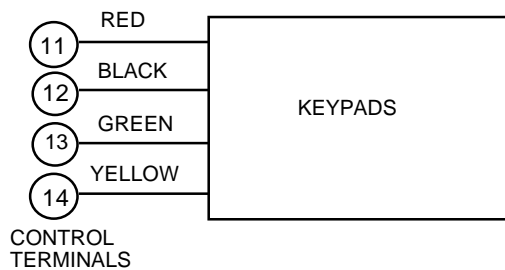
Figure 5-1. Keypad Connections to Keypad Port 1

Using a Supplementary Power Supply to Power Additional Keypads

The VISTA-100 provides 1 amp of auxiliary standby power for powering keypads and other devices from the auxiliary power output. Aside from this, the control can support up to 16 peripheral devices (keypads, RF receivers, relay modules, etc.). The backup battery will supply power to these devices in the event that AC power is lost (a 1-amp load requires a 34.4 AH battery). (See *Section 17: Final Power-Up Procedure* for more information.)

When the control's auxiliary power load for all devices exceeds 1 amp, you can power additional keypads from a regulated, 12VDC power supply (e.g., Alarm-Saf model AS/PS5-BFS-12-UL). Use a UL Listed, battery-backed supply for UL installations.

Connect the additional keypads as shown in *Figure 5-2*, using the keypad wire colors shown. Be sure to observe the current ratings for the power supply used.

- Make connections directly to the screw terminals as shown in *Figure 5-2*. Make no connection to the keypad blue wire (if one is present).

- Be sure to connect the negative (–) terminal on the power supply unit to terminal 12 (AUX –) on the control.
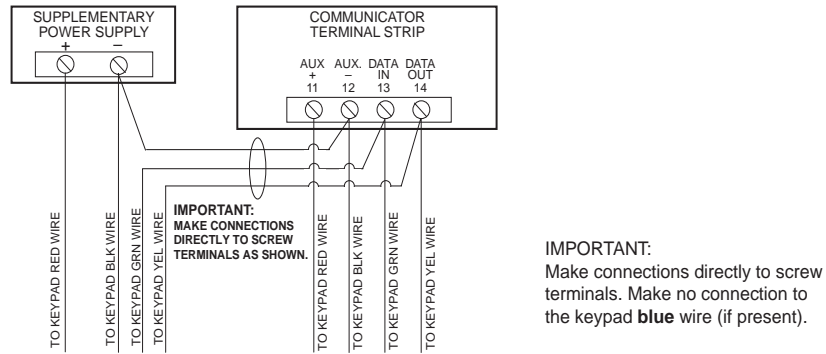
Figure 5-2. Using a Supplementary Power Supply for Keypads

Mounting the Keypads

Mount the keypads at a height that is convenient for the user. Refer to the instructions provided with the keypad for mounting procedure.

You can either surface mount or flush mount keypads (using the 6139TRK Trim Ring Kit). Refer to the mounting instructions and template included with the keypad and/or trim ring kit for specific information.

Addressing the Keypads/Preliminary Checkout Procedure

To verify that the system is working before connecting field wiring from zones and devices, take the following steps:

1. Temporarily connect a 2000-ohm end-of-line resistor across each of the basic hardwired zones 1–8, 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 the system's Device Programming Mode.

3. Set each keypad to an individual address (00-30) according to the keypad's instructions. Set an alpha keypad for address "00" and other keypads for higher addresses (01, 02, and 03 are enabled in the system's default program). Any keypads set for address 04 and above will have a blank display until they are enabled in the system's program.

Keypads set to the non-addressable 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, 01, 02, and 03.

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

5. When the proper "READY" message is displayed on the keypad(s) addressed at 00, 01, 02, and 03, the system is functioning properly.

Do not remove the EOL resistors until you are ready to make connections to the hard-wired zones, to allow for testing later in the process.

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

Programming Remote Keypads

Each keypad's corresponding address must be enabled in the system's Device Programming Mode in order to become operational. To accomplish this, refer to the procedures for Device Programming in *Section 22: #93 Menu Mode Programming.*

Basic Hardwired Zones 001-008

. . . .

In This Section

♦ *Common Characteristics of Hardwired Zones 1-8*

♦ *Wiring Burglary and Panic Devices to Zones 1-8*

♦ *Wiring 2-Wire Smoke Detectors to Zones 1 and 2*

♦ *Compatible 2-Wire Smoke Detectors*

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

♦ *Compatible 4-Wire Smoke Detectors*

♦ *Fire Alarm Verification for Smoke Detectors*

♦ *Zone 6 Tamper Configuration*

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

♦ *Programming and Checkout of Hardwired Zones*

. . . .

Common Characteristics of Hardwired Zones 1-8

- EOLR supervision (optional for zones 3-8) supporting N.O. or N.C. sensors. (EOLR supervision is required for fire and UL Burglary installations.)

- Individually assignable to one of 8 partitions.

- Up to 16 2-wire smoke detectors each on zones 1 and 2 (32 total).

- 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.

- Individually assignable to bell outputs and/or aux. relay.

Wiring Burglary and Panic Devices to Zones 1-8

To wire burglary and panic devices to zones 1 through 8, take the following steps:

1. Connect sensors/contacts to the hardwire zone terminals (15 through 27).

   - 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.

   - 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, 2, and 8, and 300 ohms for all other zones (excluding the 2K EOL resistor).

Wiring 2-Wire Smoke Detectors to Zones 1 and 2

Zones 1 and 2 have the added capability of supporting 2-wire smoke detectors. Each zone provides enough standby current (2mA) to power up to 16 of the smoke detectors listed below. **Each zone provides only enough alarm current (20mA) to power one smoke detector in the alarmed state.** When assigned to zone type 9 or 16, 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.

To connect 2-wire smoke detectors to zones 1 and 2, take the following steps:

1. Connect 2-wire smoke detectors across zone 1 and/or zone 2 terminals (15 through 18) as shown in *Figure 6-1*. Observe proper polarity when connecting the detectors.

2. If EOL resistors are presently connected across zone 1 and zone 2 terminals, remove them. **The EOL resistors must be connected across the loop wires of each zone 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.

3. See "Programming Hardwired Zones" later in this section for a detailed programming procedure.

The alarm current provided by zones 1 and 2 will support only one smoke detector in each zone in the alarmed state.
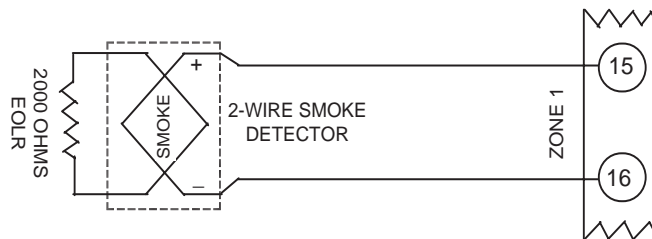
Figure 6-1. 2-Wire Smoke Detector Connected to Zone 1 (The same detector can also be connected to Zone 2, terminals 17(+) and 18(-).)

Compatible 2-Wire Smoke Detectors

You may use up to sixteen 2-wire smoke detectors each on zones 1 and 2. The detectors you can use are listed in the table below.

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

NOTE: These smoke detectors are UL Listed for use with the VISTA-100, and are the **only** 2-wire smoke detectors that may be used.

Wiring 4-Wire Smoke Detectors to Zones 1-8

When programmed for fire warning usage, all zones can monitor 4-wire smoke detectors (zone types 9 and 16), N.O. fire alarm-initiating devices (zone types 9 and 17), or N.O. sprinkler system supervisory devices (zone type 18).

You can use as many 4-wire smoke detectors as can be powered from the panel's Auxiliary Power 1 output without exceeding the output's rating (see *Section 17: Final Power-Up Procedure* 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 the built-in auxiliary relay as described below. This allows the detectors to be reset via the second entry of a User Code + OFF sequence. Field 3*61 (AUX RELAY FUNCTION) must be programmed as a **2**.

To connect 4-wire smoke detectors to zones 1-8, take the following steps:

1. Connect 12-volt power for the detectors as follows: Wire the [+] side of Auxiliary Power (Terminal 10) to the N.C. contact of the Aux. Relay (Terminal 9). Wire the pole of the Aux. Relay (Terminal 8) to the [+] Power side of the smoke detector. Connect the [-] side of the smoke detector to [-] Aux. Power (Terminal 12). Observe proper polarity when connecting detectors (see *Figure 6-2*).

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 6.2*).
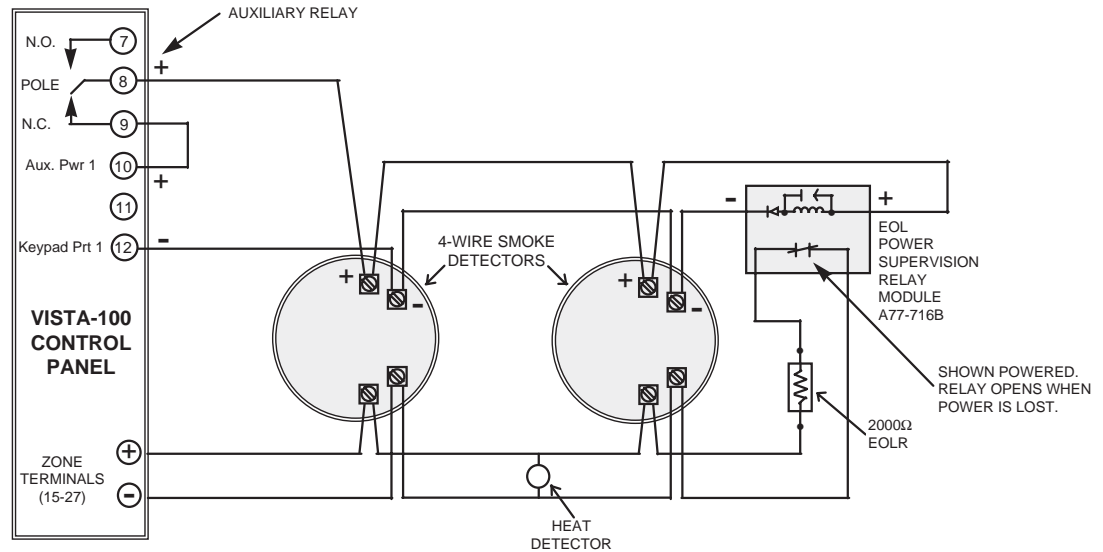
Figure 6-2. 4-Wire Smoke Detector Connections (Zones 1-8)

2. Connect detectors (including heat detectors, if used) across terminals of the zone you
    have selected. All detectors must be wired in parallel. Remove the 2000-ohm EOL
    resistor if one is 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

You can 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

Fire Alarm Verification for Smoke Detectors

This feature applies to any hardwired or polling loop fire zone set to zone type 16. For 4-
wire smoke detectors, the power must be interrupted by the system's auxiliary relay (field
3*61 = 2). The control panel will "verify" any alarm by resetting the smoke detectors after
the first alarm trigger, then waiting 90 seconds for a second alarm trigger. If the smoke
detector or thermostat does not trigger again, the control will disregard the first trigger, and
no alarm signal will occur. This feature eliminates false alarms due to electrical or physical
transients.

Zone 6 Tamper Configuration

You can use zone 6 as a tamper loop for the VISTA-100 cabinet door tamper switch and for
the ADEMCO AB12 Grade A burglary bell box tamper switches and tamper liner. You will
need to wire the bell housing's tamper switch and inner tamper linings to zone 6.

Assign zone 6 to a burglary partition. Program zone 6 for Day Trouble/Night Alarm (zone
type 5) when only one burglary partition is used. Program for 24-Hr. Audible Alarm (zone
type 7) when more than one burglary partition is used. Enable the Zone 6 Alternate
Tamper Function (program field 3*17).

When you set it in this manner, the zone will trigger a trouble when the panel is disarmed and an alarm when the panel is armed, when the zone senses either an open or a short, or when an earth ground fault caused by drilling through the AB12 housing is detected. See *Section 13: External Sounders* for information on AB12 bell wiring.

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 26 and 27).

Remove the 2000-ohm EOL resistor if one is connected across the selected zone terminals. You must connect the EOL resistor across the loop wires at the last detector.
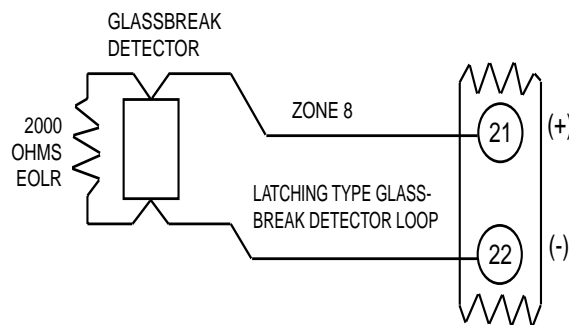
Figure 6-3. Wiring Latching Glassbreak Detectors to Zone 8

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.

- The alarm current provided by zone 8 will support only one glassbreak detector in the alarmed state.
- Do not use other N.O. or N.C. contacts when using glassbreak detectors on zone 8. Other contacts may prevent proper glassbreak detector operation.

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

Programming and Checkout of Hardwired Zones

You must program each zone in order for it to become operational. To program the zones, refer to the procedures for zone programming in *Section 22: #93 Menu Mode Programming.* Additionally, after all hardwired zones are installed, you should check each partition of the security system. To check each partition containing hardwired zones, refer to "Checkout Procedure for Hardwire Zones" in *Section 29: Testing the System.*

2-Wire Polling Loop Expansion
(Zones 9 - 87)

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In This Section

♦ *Polling Loop Overview*

♦ *Common Characteristics of Polling Loop Zones*

♦ *Wiring/Addressing RPM Devices*

♦ *Polling Loop Supervision*

♦ *Programming and Checkout of Polling Loop Zones*

♦ *Compatible Polling Loop Devices*

• •

Polling Loop Overview

You can expand the system from the basic 8 zones to as many as 87 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 128mA (unless you are 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 8 partitions

• Individually assignable to bell outputs and/or aux. relay

Wiring/Addressing RPM Devices

You must wire all devices on the polling loop in parallel to the [+] and [-] Polling Loop terminals of the control panel (terminals 28 and 29). 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 7-1*.

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, the zone

number or group is determined by the setting of DIP switches. Other devices have a built-in unique serial number which must be programmed into the control as its zone number. To set up the polling loop, take the following steps:

1. Run wires to each device on the polling loop. No individual wire run may exceed the lengths given in the following table. 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, do not run them within 6 inches 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.)

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 you intend to have the control program each serial number automatically, wire no more than 25 of these devices to the control at a time.** Then power up and program them (as described later in this section) before connecting the next 25. Leave previously programmed devices connected.

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

4. Note the polling loop devices that have DIP switches on them. Set each device's DIP switches for the zone number you are assigning to it. Refer to the device's instructions or the DIP Switch Tables in Appendix B when setting addresses.

   Certain polling loop devices, such as the 4193SN and 4191SN, do not have DIP switches. Instead, they have embedded serial numbers which must be programmed into the control during #93 Menu Mode Zone Programming.

Certain polling loop devices have a DIP switch that can be used either to select the device's zone number or to select the programming of a unique, embedded serial number into the control panel. When used with VISTA-100, these devices **must** be set for the serial number mode of operation.

BASIC POLLING LOOP CONNECTIONS
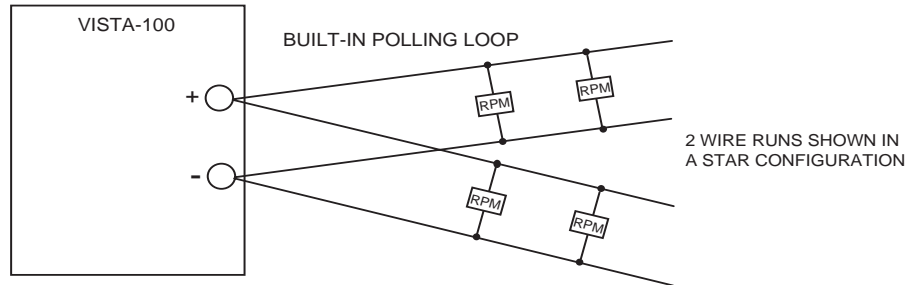
Figure 7-1. Polling Loop Connections

The 4297 Polling Loop Extender may be used to provide additional polling loop current, to extend the polling loop wire run length, and/or to provide individual electrically isolated polling loops. Refer to *Figures 7-2a* and *7-2b* below.

DO NOT use the 4197 Polling Loop Extender Module with the VISTA-100.

Be sure to include the total current drawn on the polling loop when calculating the total auxiliary load on the panel's power supply (use the Auxiliary Current Draw Worksheet in *Section 17: Final Power-Up Procedure*.

Notes: - Do not use the 4197 module with VISTA-100.
   - Refer to 4297 instructions for more detailed installation information.
     The limits shown below supercede the limits described in the 4297 instructions.
   - Do not connect 4297 modules in series.
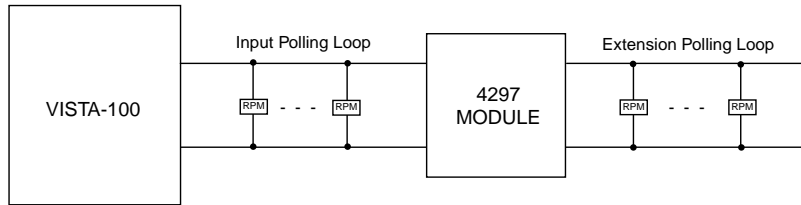
Input Loop Limits:
- 128mA max. No more than 64mA on any individual wire run.
- No individual wire run may exceed:

Gauge	Length
#22	650 ft.
#20	950 ft.
#18	1500 ft.
#16	2400 ft.

- Total length of all wire runs combined cannot exceed 4000 ft. (2000 ft. if using unshielded wire in conduit or shielded wire).

Extension Loop Limits:
- Same as for the input polling loop.

Combined Input and Extension Polling Loop Limits:
- No more than 87 devices combined.
- Total length of all wire runs on all loops combined cannot exceed 6400 ft. (3200 ft. if using unshielded wire in conduit or shielded wire)

Figure 7-2a. Polling Loop Connections Using One 4297 Extender Module

Notes: - Do not use 4197 module with VISTA-120.
   - Refer to 4297 instructions for more detailed installation information.
     The limits shown below supercede the limits described in the 4297 instructions.
   - Do not connect 4297 modules in series.
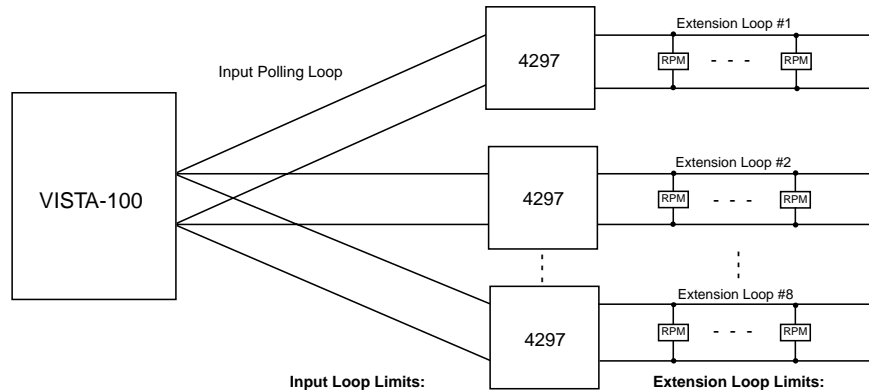
Input Loop Limits:
Same as Figure 7-2a.

Extension Loop Limits:
Each individual loop has the same limits as the input loop.

Up to 8 modules may be connected in parallel. Extension loops will be electrically isolated if blue jumper on each 4297 is left intact.

Combined Input and Extension Loop Limits:
- No more than 87 devices combined on all loops.
- To calculate the maximum wire run allowed on each extension loop:
  1. Determine the total wire length of all input loops combined.
  2. Subtract this number from 6400 ft. (3200 ft. for shielded cable or unshielded cable in conduit).
The result is the maximum wire run length for each extension loop.

Figure 7-2b. Polling Loop Connections Using Multiple Extender Modules

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. Therefore, if you want an audible trouble alarm, assign the polling loop to zone type 5 or 19.

If a device on the polling loop fails (the panel cannot detect 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 report on zone 997 will not prevent a partition from being armed, as long as all polling loop zones on that partition are bypassed.

Programming and Checkout of Polling Loop Zones

You must program each zone in order for it to become operational. To program the zones, refer to the procedures for zone programming in *Section 22: #93 Menu Mode Programming*. After all polling loop zones are installed, each partition of the security system should also be checked. To check each partition containing polling loop zones, refer to "Checkout Procedure for Polling Loop Zones" in *Section 29: Testing the System*.

Compatible Polling Loop Devices

4208	8-Zone Expander	• Accommodates up to 8 zones via the polling loop. • DIP switch-programmable. • The first two zones can be either normal or fast response (DIP switch-selectable). • 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. • DIP switch-programmable. • 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. • The right zone is unsupervised and can accept closed circuit sensors only (cannot be used in UL installations).
4278	Quad PIR	• Quad element PIR with built-in RPM (connects directly to the polling loop). • DIP switch-programmable. • Includes mirrors for both wide-angle and curtain/long-range applications. • Features an auxiliary sensor loop that is nonsupervised and can accept closed circuit sensors only (cannot be used in UL installations).

Compatible Polling Loop Devices (cont'd)

4275	Dual PIR	• Dual-element PIR with built-in RPM (connects directly to the polling loop). • DIP switch-programmable. • Includes mirrors for both wide-angle and curtain/long-range applications and can use the 1875PA Pet Alley mirror. • 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). • 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. • Connects to the polling loop and is powered from the panel's auxiliary power or by a separate power supply with battery backup.
4192SD 4192SDM	Photoelectric Smoke Detector Devices	• One-piece photoelectric smoke detector with built-in RPM. • DIP switch-programmable. • 4192SDM provides maintenance signals.
4192SDT 4192SDTM	Photoelectric Smoke Detector w/Heat Detector	• One-piece photoelectric smoke detector with 135°F (57°C) heat detector and built-in RPM. • DIP switch-programmable. • 4192SDTM provides maintenance signals.
4192CP 4192CPM	Ionization Smoke Detector	• One-piece ionization detector for products of combustion with built-in RPM. • DIP switch-programmable. • 4192CPM provides maintenance signals.
4939SN-BR 4939SN-GY	Serial Number Surface Mount Reed Contacts	• Compact surface-mount magnetic reed contact with built-in RPM. • Serial number ID programmed by control panel.
4191SN-WH	Serial Number Recessed Reed Contact	• Recessed (1/2" diameter) magnetic reed contact with built-in RPM. • Serial number ID programmed by control panel.
4959SN	Aluminum Overhead Door Contact	• 24-inch armored cable. • Serial Number ID programmed by control panel.
7500	Single-Technology Glassbreak Detector	• Glassbreak detector with built-in RPM. • DIP switch-programmable.
9500	Dual-Technology Glassbreak Detector	• Dual-technology glassbreak detector with built-in RPM. • DIP switch-programmable.

UL Models 7500 and 9500 Glassbreak Detectors are not UL Listed.

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Wireless Zone Expansion

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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*

♦ *Programming the RF Receiver*

♦ *House ID Sniffer Mode*

♦ *5700 Series Transmitter Setup*

♦ *5800 Series Transmitter Setup*

♦ *Programming and Checkout of Wireless Zones*

• •

Common Characteristics of Wireless Zones

- Supervised by control panel for check-in signals (except certain nonsupervised transmitters)
- Individually assignable to one of 8 partitions
- Individually assignable to bell outputs and/or aux. relay

UL Wireless devices may not be used in UL Commercial Burglary installations. UL Listing of the 5808 Smoke Detector for Commercial Fire installations is pending.

Wireless Systems Available

The VISTA-100 supports wireless zones which 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:

5700 Series	
Receiver	**Zones**
4281L	up to 4
4281M	up to 8
4281H	up to 63

5800 Series

Receiver	Zones
5881L	up to 8
5881M	up to 16
5881H	up to 87
5881EH	up to 87 (use with UL864 installations)

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 345 MHz USA; 315 MHz 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 to 90 minutes. If, after a programmed interval of time (i.e., 12 hours), the receiver does not hear from a *particular* transmitter, the word "CHECK" or "TRBL" 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 you must first bypass the zone.

- Zones 988 and 990 are used to supervise the RF reception of receivers 2 and 1, respectively. If, within a programmed interval of time, the receiver does not hear from *any* of its transmitters, a "CHECK" or "TRBL" message will appear for zones 988 (second receiver) or 990 (first receiver) if zone type 5 is assigned to these supervisory zones. These zones must be programmed for a 24-Hour Trouble (zone type 19). This message may be an indication that the RF receiver is "deaf." This message may also appear if the receiver has detected a condition that might impede proper RF reception (i.e., jamming or other RF interference) or the receiver has not received any RF messages in the time period defined by program field 1*30. When the message is a result of exceeding the time defined in program field 1*30, the fault is accompanied by a supervision fault for one or more RF transmitters.

- The control checks the receiver connections about every 45 seconds. If the panel has lost communication with the receiver, a "CHECK" or "TRBL" message will appear for the respective receiver supervisory zone (8 plus the 2-digit receiver device address; for example, device address 05 = supervisory zone 805). Supervisory zones must be programmed for 24-Hour Trouble (type 19). The "CHECK" or "TRBL" 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 Mode.

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

- Any zone from 1 to 63 can be used as a 5700 Series wireless zone. Any zone from 1 to 87 can be used as a 5800 Series wireless zone, with the exception of zone 64, which is reserved for a wireless keypad.

RF System Installation Advisories

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

- 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.

If dual receivers are used:

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

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

- The House IDs must be the same.

- Using two receivers *does not* increase the number of transmitters the system can support (63 zones using 4281H; 87 zones using the 5881H) in addition to a wireless keypad.

Installation and Setup of the 4281/5881 RF Receivers

1. Mount the receiver. You must mount receivers externally to the control; they 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 (11, 12, 13, and 14). 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 the system's Device Programming procedures (referenced later in this section).
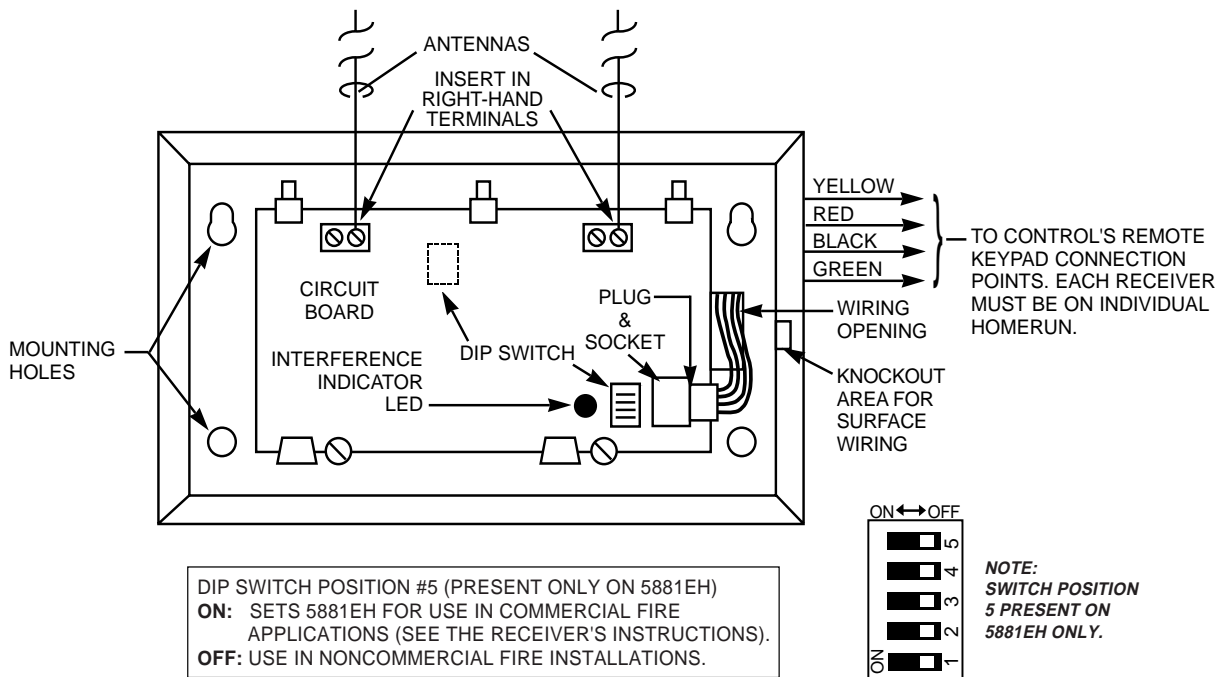
Figure 8-1. 5881 RF Receiver (cover removed)

Installing the 5800TM Module

You will need to install this module only if you are using one or more 5827BD Wireless Bi-directional keypads.

You must locate the 5800TM next to the 4281 or 5881 Receiver (between one and two feet from the receiver's antennas), and not 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 11
BLACK (Ground)	Terminal 12
GREEN (Data to Control)	Terminal 13
YELLOW (Data from Control)	Terminal 14
BLUE	(Not Used)

Cut the red jumper for address setting 28; cut the white jumper for address 29; cut both jumpers for address 30.

This address must be enabled in the control's Device Programming procedures as a keypad and then assigned to a partition.

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

Programming the RF Receiver

You must program the RF receiver in order for it to become operational. To program the RF receiver, refer to the procedures for device programming in *Section 22: #93 Menu Mode Programming.*

House ID Sniffer Mode

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

5700 Series receivers respond only to transmitters set to the same House ID (01-31) that is 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 House ID Sniffer Mode, take the following steps:

1. Enter your **[Installer Code]** + $\boxed{\text{#}}$ + **2.**

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

3. To exit Sniffer Mode, enter your Installer Code + OFF. If you need to reprogram 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 #93 Menu Mode–Zone Programming Menus.

Transmitter Supervision

- Each transmitter (except 5701 and 5727) is supervised by a check-in signal that is sent to the receiver at 70- to 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 last from 4 to 7 years, depending on the environment, usage, and specific wireless device being used. External factors such as humidity, high or low temperatures, and large swings in temperature may reduce the actual battery life in a given installation. The wireless system can identify a true low-battery situation, allowing the dealer or user of the system time to arrange a change of battery and maintain protection for that point within the system.

- You should test unsupervised transmitters periodically for battery life (e.g., 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.

To install RF transmitters, take the following steps:

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

2. Install each transmitter following the instructions provided with the transmitter.

Before permanently mounting the transmitters, verify that reception of each transmitter's signal at the proposed mounting location is adequate. To do this, perform a Go/No Go Test (See "Checkout Procedure for Wireless Zones" in *Section 29: Testing the System*).

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 *Section 19: Zone Type Definitions* 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 * 32 through 47 * (5775)
Fire	48 through 63 * 48 through 55 ** (5706)
24-Hour Panic (silent or audible)	48 through 63* 62 or 63 *** (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:

- Transmitters set for zones 48 through 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.

- Transmitters set for zones 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 No.	Description
5701	Panic Transmitter	62 or 63	• Programmable for either silent or audible 24-hour alarm.
5706 5707	Photoelectric Smoke Detector	48-55	• One-piece smoke detectors with built-in transmitter. • 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. • Has a tamper-protected cover.
5716 5716WM	Door/Window Transmitter	1-63	• Can be used with any open- or closed-circuit sensor. • Features a built-in reed switch. • 5716WM includes magnet.
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 sound *and* shock. Requires the presence of *both* to initiate an alarm condition transmission.

Compatible 5700 Series Transmitters (cont'd)

Model	Product	Zone No.	Description
5775	PIR Detector	32-47	• Dual-element passive infrared detector with built-in selectable pulse count. *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. • Features the same built-in panic functions as wired keypads. • Identified as zone "00" (on wired keypads) when it transmits with a low battery.
5827BD	Wireless Keypad	House ID	• Requires use of 5800TM Module (must be enabled in Device Programming and assigned to a partition in 1*48). • Operates the system similarly to wired keypads. • Can indicate system status via its 3 LEDs and sounder. • Includes 3 panic keys. • 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 programmed into the system using # 93 Menu Mode programming, or input to the control using the V-LINK downloader. 5800 Series transmitters (except the 5827, described separately) do not have DIP switches.

Each transmitter's zone number is programmed into the system in # 93 Mode. Some transmitters, such as the 5816 and 5817, can support more than one "zone," which is referred to as a loop or input. On the 5816, for example, the wire connection terminal block is loop 1, the reed contact is loop 2. You must assign a different zone number to each loop.

For button transmitters (RF "keys"), such as the 5804, 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, which is automatically displayed when programmed.

Transmitter Supervision

Except for some transmitters that can be carried off premises (5802, 5802CP, 5803, 5804, 5827, and 5827BD), all transmitters are supervised by a check-in signal that is sent to the receiver at 70- to 90-minute intervals. If the receiver does not receive at least one check-in from each supervised transmitter within a 12-hour period, 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) can be turned off by programming it as a "UR" (Unsupervised RF) type, as described later in this section.

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

Transmitter Input Types

All of the transmitters described here 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).

You can program a transmitter as one of the following types:

Type	Description
"RF" (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" (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" (Unsupervised Button RF)	Sends only fault signals. It does not send low-battery signals until it is activated. The transmitter may be carried off-premises.

Transmitter Battery Life

- Batteries in the wireless transmitters last from 4 to 7 years, depending on the environment, usage, and specific wireless device being used. Factors such as humidity, high or low temperatures, and 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, allowing the dealer or user of the system time to arrange a change of battery and maintain protection for that 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 programmed by the control.

- You should test button-type transmitters (e.g., 5801, 5802, 5802CP and 5803) periodically for battery life.

Do not install batteries in wireless transmitters until you are ready to program them, utilizing zone programming procedures referenced later in this section. After programming, batteries need not be removed.

Compatible 5800 Series Transmitters

Model	Product	Program As Input Type	Description
5801	Wireless Panic Transmitter	UR or RF	• Has four pushbuttons, each with a unique input (loop) code. • Programmable responses (e.g., Panic, Arm–Stay, Arm–Away, Disarm, etc.). • For arming/disarming functions, button must be assigned to a user code when adding a user.

Compatible 5800 Series Transmitters (cont'd)

Model	Product	Program As Input Type	Description
5802 5802CP	Pendant (Personal Emergency Transmitter) Belt Clip (Personal Emergency Transmitter)	BR Only	• Has a single pushbutton. • Usually programmed for response type of 24-Hr. Audible or 24-Hr. Silent (other zone responses are possible). • Contains a nonreplaceable battery. At the end of the battery's life, the entire unit must be replaced. • 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 a single pushbutton. • Usually programmed for a response type of 24-Hr. Audible or 24-Hr. Silent (other zone responses are possible). • If using for arming/disarming, the button must be assigned to a user code when adding a user. • Contains a replaceable battery.
5804	Wireless Key Transmitter	BR Only	• Has four pushbuttons, each with a unique input (loop) code. • Programmable responses (e.g., Arm–Stay, Arm–Away, Disarm etc.). • Contains a replaceable battery. • 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. • 5806 and 5807 UL Listed for residential fire usage only. 5808 commercial fire listing is pending.
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).
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. • Has a single unique input (loop) code.

Compatible 5800 Series Transmitters (cont'd)

Model	Product	Program As Input Type	Description
5827	Wireless Keypad	House ID	• Can be used to turn the burglary protection on and off. • Features the same built-in panic functions as wired keypads. • The keypad is identified as zone "00" on wired keypads when it transmits with a low battery.
5827BD	Wireless Bi-directional Keypad	House ID	*(Used with 5800TM Module)* • Operates the system similarly to wired keypads. • Can indicate system status via its 3 LEDs and sounder. • Includes 3 panic keys. • House ID must be set. • Requires 5800TM Transmitter Module (must be enabled in #93 Menu Mode –Device Programming and assigned to a partition in 1*48).
5849	Glassbreak Detector	RF	• Requires both sound and shock of breaking glass to cause an alarm to be transmitted. • Has a unique input code.
5890	PIR Detector	RF	• Dual-element passive infrared detector/transmitter with built-in selectable pulse count. • Has a unique input code. *Note*: There is a 3-minute lockout between fault transmissions to conserve battery life.

Programming and Checkout of Wireless Zones

Each wireless zone must be programmed in order to become operational. To program the zones, refer to the procedures for zone programming in *Section 22: #93 Menu Mode Programming*. After all wireless zones are installed, each partition of the security system should be checked. To check each partition containing wireless zones, refer to "Checkout Procedure for Wireless Zones" in *Section 29: Testing the System.*

Relay Outputs

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In This Section

♦ *Relay Basics*

♦ *Wiring the 4204 and 4204CF Relay Modules*

♦ *Programming Relay Modules and Output Devices*

• •

Relay Basics

Relays, used in conjunction with the control panel, are programmable switches that can be used to perform many different functions. They can be used to turn lights on and off, to control sounders, or to indicate status. 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 four 4204 or eight 4204CF Relay Modules. Each 4204 module provides 4 relays with Form C (normally open and normally closed) contacts. This means you can program up to 16 relays to activate and de-activate as desired. Each 4204CF module adds two additional style Y supervised bell outputs to the system. If 4204CF modules are used exclusively, only relays 1 and 3 on each module can be programmed. The other 2 relays (relays 2 and 4) on each module are used for supervision purposes.

This section is used to program relays to activate in response to a programmed **condition.** The system can also be programmed to activate relays at specific **times** by using the #80 Scheduling Menu Mode–Time Driven Events function.

Wiring the 4204 and 4204CF Relay Modules

To wire the 4204 or 4204CF Relay Module, take the following steps:

1. Set the 4204's (see *Figure 9-1a*) or 4204CF's (see *Figure 9-1b*) DIP switches for a device address between 01 and 15 that is not being used by another device (keypad, RF receiver, etc.).

The relay module will not operate until the device address you have chosen is enabled in the control's Device Programming mode.

2. Mount the 4204 and 4204CF modules following the instructions provided with the module(s). Connect the 4204/4204CF module(s) to the control's Keypad 1 terminals (11-14) when mounted remotely from the control (they may be wired to Port 2 when mounted on or within the control's cabinet). Use the flying lead cable or the screw terminals provided with each relay module to make connections.

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	—	—	—	—	—	—	—	—

OFF ← → ON

4204

DIP SWITCH FOR SETTING DEVICE ADDRESS AND ENABLING/DISABLING TAMPER

COVER TAMPER (REED) **SWITCH**

4-PIN CONSOLE PLUG

EITHER OR BOTH CAN BE USED

TB1

13 14 15 16

YEL — DATA IN FROM CONTROL
BLK — (—) GROUND
GRN — DATA OUT TO CONTROL
RED — (+) 12V

RELAY 4 TYPICAL (SHOWN "OFF")
12 C
11 NC
10 NO
RELAY 3
9 C
8 NC
7 NO
RELAY 2
6 C
5 NC
4 NO
RELAY 1
3 C
2 NC
1 NO
TB2

Figure 9-1a: 4204 Relay Module

SWITCH POSITION ↓	4204CF 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	—	—	—	—	—	—	—	—

OFF ← → ON

DIP SWITCH FOR SETTING DEVICE ADDRESS AND ENABLING/DISABLING TAMPER

COVER TAMPER (REED) **SWITCH**

4-PIN CONSOLE PLUG

EITHER OR BOTH CAN BE USED

TB1

13 14 15 16

YEL — DATA IN FROM CONTROL
BLK — (—) GROUND
GRN — DATA OUT TO CONTROL
RED — (+) 12V; SUPPLIES POWER TO MODULE CIRCUITRY (INCLUDING NOTIFICATION APPLIANCE RELAY COILS). CURRENT DRAIN AT 12V IS: 25 mA + (80 mA PER ACTIVE OUTPUT)

12
11 NC
9 NC
8 NC
7 NC
6
5
4
3
2 NC
1 NC
TB2

NOTIFICATION APPLIANCE B 2K EOLR #610-7

POLARIZED NOTIFICATION APPLIANCE

NOTIFICATION APPLIANCE A 2K EOLR #610-7

POWER FOR NOTIFICATION APPLIANCE A, NOTIFICATION APPLIANCE B 8-28VDC OR VFW. UP TO 2.4A DEPENDING ON BELL CURRENT

NOTIFICATION APPLIANCE AND CONSOLE DATA OUTPUTS ARE POWER LIMITED

- ALARM POLARITY SHOWN
- EACH OUTPUT PROVIDES STYLE Y SUPERVISION
- EACH OUTPUT RATED 1.2A MAX
- USE NOTIFICATION APPLIANCES COMPATIBLE WITH NOTIFICATION APPLIANCE POWER SUPPLY VOLTAGE RATING

Figure 9-1b: 4204CF Relay Module

3. When you are mounting them remotely, homerun each module back to the control. The table below shows the maximum wire run lengths from the control to each 4204. Refer to the instructions provided with the 4204CF for its maximum permissible wire lengths.

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

Programming Relay Modules and Output Devices

You must program each relay module and output device in order for it to become operational. To program the relay modules, refer to the procedures for device programming in *Section 22: #93 Menu Mode Programming*. To program the output devices, refer to the procedures for relay programming in *Section 22: #93 Main Menu Programming*.

4285/4286 VIP Module

• •

In This Section

♦ *General Information*

♦ *Mounting the VIP Module*

♦ *Wiring the VIP Module*

♦ *Programming the VIP Module*

• •

UL   The 4285/4286 VIP Module is not permissible for Commercial Fire or UL Commercial Burglary installations.

General Information

The 4285/4286 VIP Module is an add-on accessory that allows the user to access 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. You must enable this module in the #93 Device Programming Mode as Device Address 4, and assign it 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 *Section 22: #93 Menu Mode Programming*.

• Can be supervised for connection to control panel (annunciated and reported as zone 804).

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, if not, mounted on the side of the cabinet or adjacent to it. Pry off the VIP Module's cover before wiring.

To mount the VIP Module, take the following steps:

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 the Module 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 you prefer). 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 in Step 3).

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). It listens for touch-tones 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 5 on the VIP Module as described in the following table:

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. Ground	earth ground terminal (30) on control
6. Audio Out 1	future use
7. Audio Out 1	future use

- Use an RJ31X Jack with the phone cable supplied with the control. Use an additional RJ31X Jack and a direct-connect cord to make connections to the 4285/4286. 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 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 touch-tones 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.
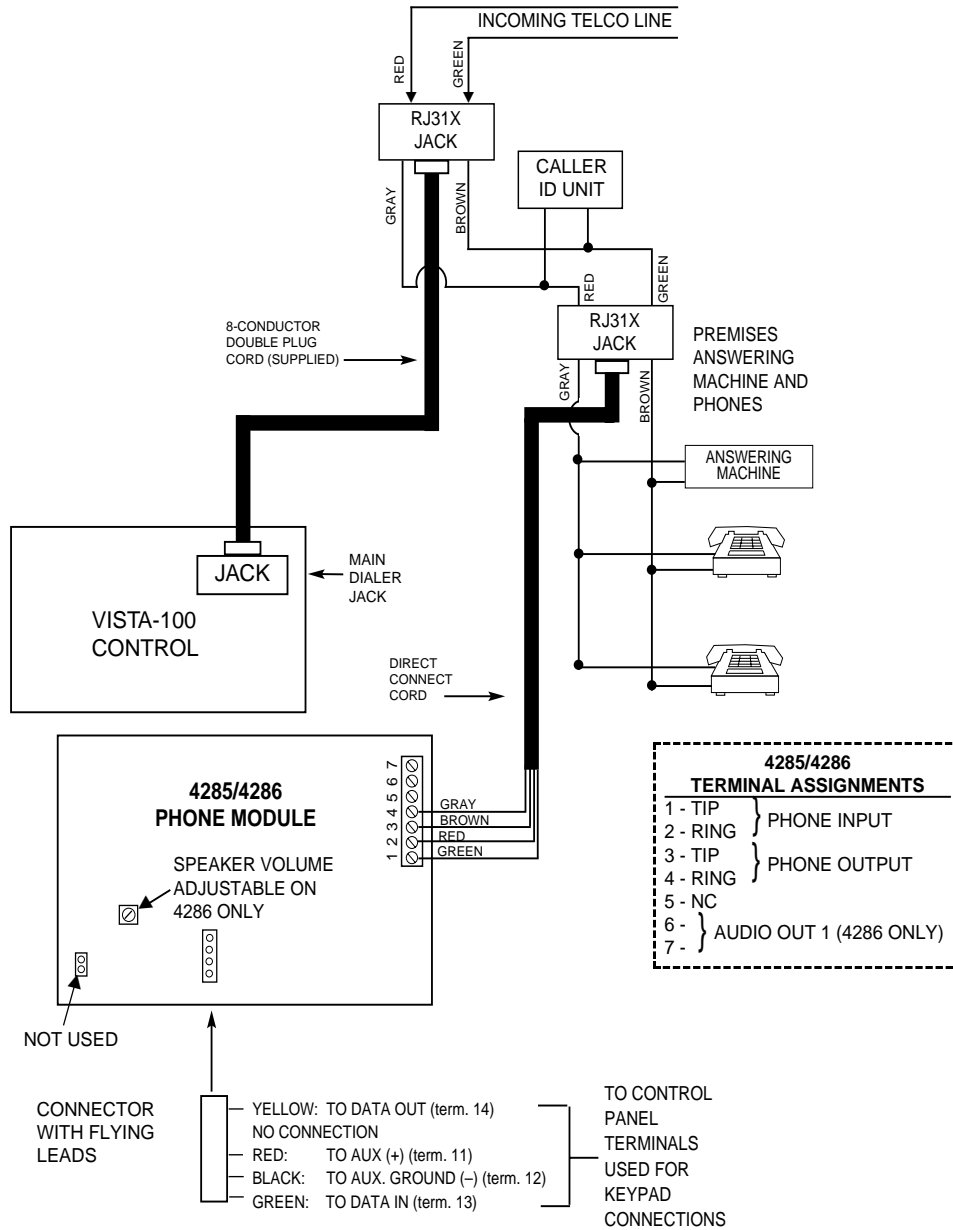
Figure 10-1. 4285/4286 VIP Module Connections

If the phone plug is disconnected from the control, the premises phones will not operate.

Programming the VIP Module

The VIP Module must be programmed to become operational. To program the VIP Module, refer to the procedures for device programming in *Section 22: #93 Menu Mode Programming*.

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 a two-way voice), such as the Eagle 1241, 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 the Eagle 1241 module's terminals 7 and 8 to the control's zone 5 terminals 22 and 23. 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 you are using the AAV, zone 5 must be assigned a zone response type (e.g., response type 10), and you must enable option 1*60 to silence sounders on the premises.

AAV Module Operation

After the system has sent all messages to the primary phone number during a reporting session, the control will trigger the AAV if at least one of the messages was an alarm report. If you selected Contact ID format for the primary phone number, the control will send a "listen-in to follow" message (Event Code 606), which signals the Event Code 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 the 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 each audio alarm verification session to 15 minutes, 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.

The AAV module is triggered by the use of a 4204 relay as shown in the Relay Trigger diagram (*Figure 11-1*). You must set the start and stop conditions for the 4204 relay to choice 60, "Audio Alarm Verification," during relay programming via #93 Menu Mode.

Some AAV modules allow remote triggering by ring detection at the alarm installation. If you select this option, it may defeat modem download and the 4285/4286 VIP Module remote access capability. The DIP switch settings shown on *Figure 11-1* disable the remote AAV module trigger option. The control also requires that the AAV module trigger type is falling-edge, which is set in DIP switch settings shown.

- 685 Receiver software must be rev. 4.6 or higher. Earlier versions will not hold the phone line connection.
- The 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" code.

Audio Alarm Verification Module Connections

Connect the Audio Alarm Verification module's falling-edge trigger input (terminal 5 on Eagle Model 1241) to a 4204 Relay Module, as shown in *Figure 11-1.*

If you are using a 4285/4286 VIP Module in addition to the AAV, follow the corresponding diagram when making connections.

Programming Audio Alarm Verification Module Options

1. When you have wired at least one 2-line alpha keypad (6139/6139R) and set it to a proper address, temporarily apply power to the system.

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

3. Program the following data fields:

   Set field **1*60** ZONE 5/AUDIO ALARM VERIFICATION to 1.

   Set field ***45** PRIMARY DIALER FORMAT to 1 (Contact ID).

For more information about actual programming procedures, see *Section 18: The Mechanics of Programming.*

4. Program zone 5 for response type 10. **You must remove the EOLR, regardless of whether you enabled EOLR resistors in field *41.** Zone 5 is not available as a protection zone.

5. Program a 4204 relay to trip on Zone Type/Sys. Op. 60-Audio Alarm Verification (see *Section 9: Relay Outputs).*

6. Press *99 to exit Program Mode.

7. Enter **[Installer Code] + OFF** to cancel the system's settling delay.

INCOMING TELCO LINE

RED   GREEN

RJ31X
JACK

CALLER
ID UNIT

Note:
1. Remove any EOL resistor from control panel terminals 22 & 23, if they are present.

GRAY   BROWN

8-CONDUCTOR
DOUBLE PLUG
CORD (SUPPLIED)

JACK

VISTA-100
CONTROL

PREMISES
ANSWERING
MACHINE AND
PHONES

ANSWERING
MACHINE

All switches should be "OFF" except switch 5, which should be "ON."

ON
1 2 3 4 5 6

REFER TO
AAV MODULE
INSTRUCTIONS
FOR CONNECTIONS
TO AUDIO SPEAKERS
AND MICROPHONE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

TO
CONTROL
ZONE 5+ ㉓
ZONE 5- ㉒

GRAY
BROWN

MODEL EAGLE SECURITY
1241

GND

4204 RELAY
MODULE

13 V+
14
15 GND
16

RELAY 1, SHOWN
"OFF"

NO   NC   C
1   2   3

Figure 11-1. Audio Alarm Verification Module Connections

If the phone plug is disconnected from the control, the premises phones will not operate.

J2 Trigger Outputs

In This Section

♦ *General Information*

♦ *Remote Keypad Sounder Operation and Wiring*

♦ *Remote Keyswitch Operation and Wiring*

♦ *5140LED Indicator Module*

♦ *Auxiliary Alarm Signaling Equipment*

♦ *Event Log Printer Connections*

♦ *Direct Wire Downloading*

General Information

The J2 connector, located in the upper right corner of the main PCB, provides 1 input (labeled INPUT 1) and 7 trigger outputs (labeled OUT 1 - OUT 7) that can be used to interface to the following:

• Remote keypad sounder

• UL Listed keyswitch

• 5140LED Indicator Module

• Auxiliary alarm-signaling equipment such as an ADEMCO Long Range Subscriber Radio

• Event logging serial printer (via the 4100SM Interface Module)

• PC computer used to direct-wire download the panel's programming information (via the 4100SM Interface Module)

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

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

The pin assignments for the J2 connector are shown in the diagram below. 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.

You can use program fields 3*19 and 3*20 to select the functions of INPUT 1 and OUT 1-7, as indicated in *Figure 12-1.*

When using J2 for LORRA, INPUT 1 (pin 9) is supervised by zone 973, which is used for supervision of the LORRA XMIT OKAY signal. Assign a 24-hr. zone response type (5 or 19) to this zone.

J2 CONNECTOR

	FIELD 3*19 = 0 FIELD 3*20 = 0 (DEFAULT)	FIELD 3*19 = 0 FIELD 3*20 = 1	FIELD 3*19 = 0 FIELD 3*20 = 2	FIELD 3*19 = 1
INPUT 1	LORRA XMIT OKAY	LORRA XMIT OKAY	LORRA XMIT OKAY	PRINTER DTR
GROUND				
OUT 1	OPEN/CLOSE	KEYSWITCH ARMED LED	5140LED AC FAIL LED	AS SELECTED IN FIELD 3*20
OUT 5	REMOTE CONSOLE SOUNDER	KEYSWITCH READY LED	5140LED DIALER 2 FAIL LED	AS SELECTED IN FIELD 3*20
OUT 2	FIRE ALARM	FIRE ALARM	FIRE ALARM	PRINTER RXD
OUT 6	FIRE SUPERVISORY	FIRE SUPERVISORY	FIRE SUPERVISORY	AS SELECTED IN FIELD 3*20
OUT 3	BURGLARY ALARM	BURGLARY ALARM	5140LED COMM FAIL LED	AS SELECTED IN FIELD 3*20
OUT 7	TROUBLE	TROUBLE	TROUBLE	AS SELECTED IN FIELD 3*20
OUT 4	PANIC ALARM	PANIC ALARM	5140LED DIALER 1 FAIL LED	AS SELECTED IN FIELD 3*20

MAKE CONNECTIONS USING 4142TR (1 SUPPLIED)

Figure 12-1. J2 Pin Assignments and Functions

Remote Keypad Sounder Operation and Wiring

You can use an optional Amseco PAL 328N Piezo Sounder for installations where you want to duplicate the sounds produced by the keypad's built-in sounder. The panel will duplicate all sounds (i.e., alarm, trouble, chime, entry/exit, etc.) produced by the keypad's built-in sounder except for the short beeps associated with keypad key depression. You can use this feature to produce chime sounds at a location that is distant from the panel's keypads. If you use this feature, set program field 3*20 to "0" (the factory default) to enable the remote sounder option; and set field *15 to the desired partition number. Connect the PAL 328N to J2/OUT 5, as shown in *Figure 12-2.*
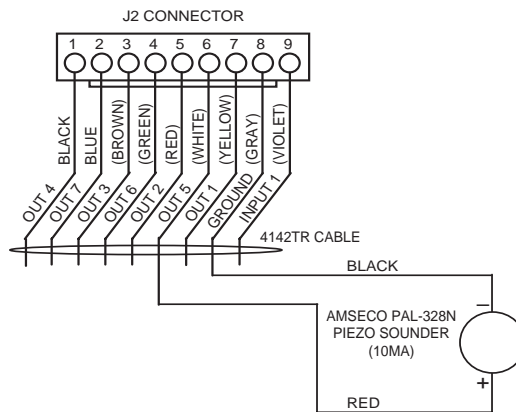
Figure 12-2. Remote Keypad Sounder Wiring

Remote Keyswitch Operation and Wiring

You can use an optional UL Listed remote keyswitch, such as the ADEMCO 4146, for remote arming/disarming of the burglary portion of the system and for remotely silencing alarms. If you use such a keyswitch, program the following:

Figure 12-3. Remote Keyswitch Wiring

UL In Commercial Fire installations, mount the keyswitch next to a keypad. The keypad will provide the UL-required "FIRE BELL SILENCED" indication when the keyswitch is used to silence a fire alarm.

Keyswitch Operation 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 they are used).

When you set field *15 to 9, the keyswitch operates as follows:

A momentary short across zone 7 will silence alarm bell sounds (i.e., it will turn off Bell 1, Bell 2 and the aux. relay if it was programmed for alarms) only if a fire alarm is present. Outputs will re-sound automatically if a new fire alarm condition is detected. Burglary alarms will not trigger the bell output until a User Code + OFF is entered at the keypad. A momentary short has no effect if there are no fire alarms present. Use this mode where you want to provide the fire department with keyswitch silence capability without compromising the burglary system's security.

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

Enable Open/Close reporting for the keyswitch in field *40. The keyswitch reports as User 0.

5140LED Indicator Module

An optional 5140LED Indicator Module *(Figure 12-4)* can be used in municipalities that require dedicated indicators for communicator fault status. The 5140LED provides the following indicators:

- AC POWER:
  ON if AC power is present.
  OFF if AC power is not present.

- COMM FAILURE:
  ON if the maximum number of attempts were made to transmit a message to the central station (you can program the maximum number of attempts in field 3*21). Enter [User Code] + OFF following a successful transmission to turn the Comm Failure off.
  OFF if normal.

- DIALER 1 FAULT:
  ON if the main dialer line is faulted. Correct the problem and then enter [User Code] + OFF to turn off the Dialer 1 Fault.
  OFF if normal.

- DIALER 2 FAULT:
  ON if the backup dialer line is faulted. Correct the problem and then enter [User Code] + OFF to turn off the Dialer 2 Fault.
  OFF if normal.

If you use this feature, set program field 3*20 to 2, and connect the 5140LED module to J2/OUT 1, 3, 4, 5, as shown in *Figure 12-4*. The module is designed to be mounted into a standard single-gang electrical box and installed as follows:

1. Pull the wires from the panel's J2 connector through an opening in the single-gang box and splice these wires to the module's flying leads. You can use solderless splices.

2. Mount the module's PC board onto one side of the PC board retainer bracket (supplied).

3. Slide the PC board retainer bracket into the box and fasten with screws (supplied).

4. Mount the stainless steel decorative cover (supplied) onto the box.
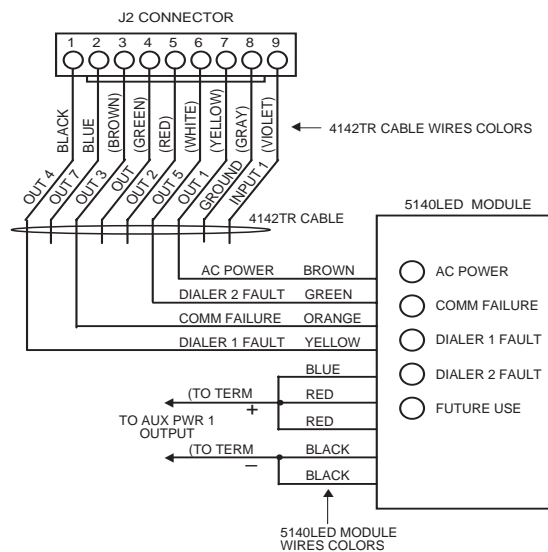
Figure 12-4. 5140LED Indicator Module

Auxiliary Alarm Signaling Equipment

The J2 connector can be used to provide triggers for the following conditions:
- Fire alarm
- Burglary/audible panic alarm
- Silent panic/duress alarm
- Fire supervisory
- Trouble
- 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. Note that not all of these triggers are available for all settings of field 3*20. Consult *Figure 12-1, J2 Pin Assignments and Functions*, for configuration of the J2 triggers.

The open/close, fire alarm, fire supervisory, burglary/audible panic alarm, silent panic/duress alarm, and trouble triggers are common to all partitions and must be enabled for each partition (to program them, use 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 become 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.

The fire supervisory and trouble triggers remain HIGH until the underlying faults are corrected and the [User Code] + OFF is entered in all enabled partition(s) which display these conditions.

Figures 12-5a, b, and *c* show connection configurations for the 7720, 7720ULF, and 7920SE Long Range Radios.
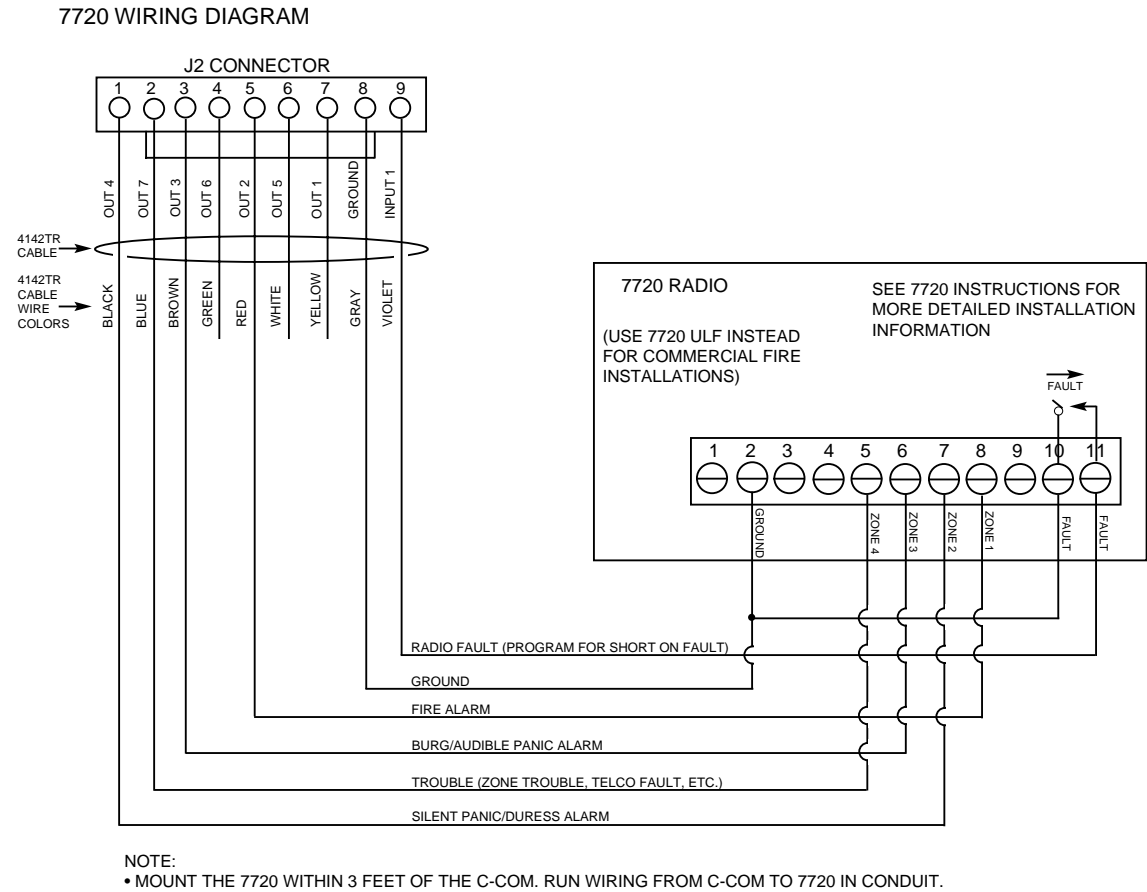
Figure 12-5a. Connections to 7720 Long Range Radio

CONNECT TO POLLING
LOOP GROUND SCREW

4.7K
(NOTE)

GROUND

FIRE ALARM — ZONE 1

SILENT PANIC ALARM — ZONE 2

BURGLARY/AUDIBLE
PANIC ALARM — ZONE 3

FIRE SUPERVISORY — ZONE 4

TROUBLE — ZONE 5

FAULT

TB2
1
2
3
4
5
6
7
8
9
10

TB1
1
2
3
4
5
6
7
8
9
10

CABINET GROUND

EARTH GROUND

SEE 7920SE INST. INSTR. FOR
INSTRUCTIONS ON POWERING

NOTES:

1. The 7920SE cabinet is at circuit ground
   potential and must be isolated from earth
   ground to avoid earth ground faults.

2. Enable trigger supervision pulses (2*21)
   when 7920SE mounted more than 3 feet
   from control. Run wires from control to
   7920SE in conduit and use PVC conduit or
   equivalent means to isolate cabinets of
   each unit.

Figure 12-5c. Connections to 7920SE Long Range Radio

Event Log Printer Connections

The VISTA-100's event log can be printed on a local serial printer. If you use the event log, program field 3*19 to 1.

This setting overrides the functions selected for INPUT 1 and OUT 2 made in field 3*20.

Connect a UL EDP Listed serial printer to the J2 connector using an ADEMCO 4100SM Interface module. Refer to *Section 16: Event Log Options* for wiring connections, printer configuration, and a description of the keypad commands that initiate event log printing.

If earth ground fault sensing is enabled:

- An earth ground fault indication can occur when the 4100SM module is clipped directly onto a side wall of the VISTA-100 cabinet. If it does, use an insulator to insulate the 4100SM's clip-on bracket from the VISTA-100 cabinet side wall. Later production versions of the 4100SM have the clip-on bracket isolated from the circuit ground (terminal 7) and do not have this problem.

- An earth ground fault indication can also occur if you use a printer or PC that has a 3-prong, grounded power cord. If it does, first verify that pin 1 (chassis ground) is isolated from pin 7 (signal ground) on the 4100SM's RS232 connector. (Early production versions of the 4100SM have an unmarked, 3/8" long, bare wire jumper lying near the pin 1 side of the RS232 connector, which must be cut to isolate these pins.) Verify that these pins are isolated on your printer's RS232 connector. Follow the instructions provided with your printer to isolate these pins if necessary.

Direct Wire Downloading

The VISTA-100 can be downloaded without using a modem or telephone line by using a 4100SM Serial Module (and V-LINK Downloading Software). This method of downloading is referred to as "direct-wire" downloading. Connect a PC running the downloading software to the 4100SM module, as specified in the module's instructions. Connect the 4100SM to the panel's J2 header. Refer to *Section 25: Downloading Primer* for wiring connections.

You can initiate direct-wire downloading by following the procedures described in the V-LINK manual.

External Sounders

General Information

The VISTA-100 provides two bell circuit outputs for operating fire and burglary alarm notification appliances. These bell outputs are rated as follows: 10VDC - 14VDC, 1.7 amps maximum, power limited. Note that the total alarm current drawn from the Aux. Power 1, Aux. Power 2, polling loop, Bell 1, and Bell 2 outputs cannot exceed 2.3 amps for battery-independent operation. Each output has the following options:

- Class B supervision (style Y) or no supervision
- Programmable to activate by individual zone assignments
- Programmable for confirmation of arming ding (1-2 sec. sounding to confirm system has armed)
- Programmable to chime when entry/exit or perimeter zones are faulted
- Programmable for steady or pulsing output
- Programmable for no timeout, or timeout of 2 to 30 minutes

✓ If you purchased a kit containing the PS24 Power Supply module, you can use this module to convert one or both VISTA-100 12VDC, 1.7A style Y supervised bell outputs to 24VFW, 1.7A style Y supervised bell outputs.

UL
- Burglary bell circuits must be programmed for a timeout of 16 minutes or longer.
- Commercial fire alarm systems require bell or indicating circuits to be supervised.

Bell Circuit Supervision

To **supervise** bell circuits, take the following steps:

1. Install a 2k EOL resistor (Model 610-7, supplied) across the last notification appliance on each bell output you want supervised.
2. Program zones 970 (Bell 1) and 971 (Bell 2) for 24-Hr. Trouble response (zone type 19, #93 Zone Programming Mode).

To **unsupervise** bell circuits, take the following steps:

1. Cut the white jumpers W1 (for Bell 1) and/or W4 (for Bell 2) on the main PCB.
2. Program zones 970 (Bell 1) and 971 (Bell 2) for a response type of 00 to disable supervision (#93 Zone Programming Mode).

NOTE: *Do not* install the EOL resistor(s) across the unsupervised output(s).

Programming the Bell Outputs

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

2. Program the following data fields:

*08	Temporal Siren Pulse
*13	Select Timeout for Bell 1
*16	Confirmation of Arming Ding for Bell 1
1*47	Enable Chime for Bell 1
3*57	Confirmation of Arming Ding for Bell 2
3*59	Enable Chime for Bell 2
3*15	Select either Steady or Pulsing for each bell circuit output
3*60	Select Timeout for Bell 2

3. Enter **#93** Zone Programming Mode to assign zones to bell outputs and/or aux. relay.

4. Exit Program Mode by pressing ***99**.

The bell outputs will not respond if zones are not assigned to them. If a fire alarm occurs and the bell outputs have not had zones assigned, the system will display "FIRE ALARM SILENCED." This message will also be displayed if the bell output is not supervised.

Wiring

By default, Bell 1 is set to operate as an unsupervised burglary bell output. You may use any UL Listed, nonpolarized burglary-indicating device rated for 10-14 VDC operation on this output. Note that a local Burglary Grade A listing requires that a bell in a tamper-protected housing, such as the ADEMCO AB12, be used and that bell wiring be run in conduit.

By default, Bell 2 is set to operate as a supervised fire bell output. Note that the panel supervises this wiring for open, short, and earth ground faults. You may use any UL Listed, polarized fire-indicating device rated for 10-14VDC operation on this output. Observe polarity when wiring polarized devices.

Compatible Alarm Indicating Devices

Compatible devices are listed in the table below. The diagram *(Figure 13-1)* shows how to make connections to these outputs.

Model	Description
System Sensor PA400B (beige)/PA400R (red)	Indoor piezo sounder (red or beige), rated at 90 dB @ 10 feet
System Sensor MA-12/24	Horn
System Sensor SS-12	Strobe
System Sensor SS1215 ADA	Strobe
System Sensor SS121575 ADA	Strobe
System Sensor MASS1215 ADA	Horn/Strobe

Model	Description
System Sensor MASS121575 ADA	Horn/Strobe
System Sensor MA/SS-12	Horn/Strobe
Wheelock LS1-12-VFR	Strobe
Wheelock MS1-12-VFR	Strobe
Wheelock MT-12-LS-VFR	Horn/Strobe
Wheelock MT4-12-LS-VFR	Horn/Strobe
Wheelock MT-12-MS-VFR	Horn/Strobe
Wheelock MT4-12-MS-VFR	Horn/Strobe
Gentex GXS-2-15	Strobe
Gentex GXS-2-1575	Strobe
Gentex SHG-12-15	Horn/Strobe
Gentex SHG-12-1575	Horn/Strobe
Faraday 5336L-U-14-12-DC	Horn/Strobe
Faraday 5337L-U-14-12-DC	Horn/Strobe

(Shows wiring for bell outputs configured using factory default programming selections)

BELL 1 FACTORY DEFAULTS
Bell 1 is configured as a burglary bell circuit
• Use nonpolarized Grade A indicating devices (e.g., ADEMCO No. AB12 - see wiring notes below)
• Wiring is not supervised; cut white jumper, W1, on main PCB
• Activates for Zones 3-8 alarms (by default, Zones 3-8 are assigned to burglary partition 1)
• Steady alarm output
• 16-minute timeout

BELL 2 FACTORY DEFAULTS
Bell 2 is configured as a fire bell circuit
• Use polarized indicating devices
• Class B open/short supervision
• 24-hr. trouble response to faults
• Activates for Zone 1-2 alarms (by default, Zones 1-2 are assigned to fire partition 3)
• Pulsed alarm output
• No timeout
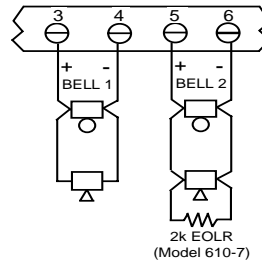
AB12 WIRING NOTES:
• Disconnect the AB12's factory-wired connection from its terminal #4 to its outer box.
• Set field 3∗17 to "1" to enable Zone 6 tamper function.
• Assign Zone 6 to a burglary partition. Program it for day trouble/night alarm response (type 05) when this bell is used by only one burglary partition. Program it for 24-hr. audible alarm response (type 07) when this bell is used by more than one burglary partition.
• All wiring from AB12 to panel must be run in conduit.

AB12 BELL/BOX WIRING
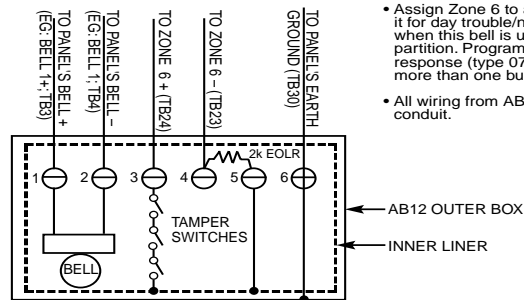
Figure 13-1. External Sounder Connections

Auxiliary Relay

In This Section

♦ *Relay Functions*

Relay Functions

The VISTA-100 provides a built-in Form C relay with contacts rated at 28VAC/VDC, 2.8 amps maximum. You can program this relay for one of the functions below (determined by program field 3*61):

- Alarm Activation
- Trouble/Supervisory Activation
- 4-Wire Smoke Detector Reset
- Battery Saver

These functions are described below.

Alarm Activation (3*61 = 1 or 4)

By setting field 3*61 in #93 Zone Programming Mode, you can program steady activation in response to an alarm on one, some, or all zones. If you set 3*61 to 1, the auxiliary relay remains active until Aux. Relay Timeout expires or until [User Code] + OFF is entered. This option can be used to provide a third, unsupervised bell output for supplementary strobes, sounders, etc. when wired to the Aux. Power 1 output or to a separate power supply, as shown in *Figure 14-1.*

If you set field 3*61 to 4, the auxiliary relay remains activated until [User Code] + [#] + 67 is entered. This option can be used for elevator recall or ventilator shutdown on fire alarms. By default, the relay is set to activate on alarm zones 1-8 with no timeout (field 3*61 = 1). This usage might be required for a common fire and burglary alarm strobe indicator.
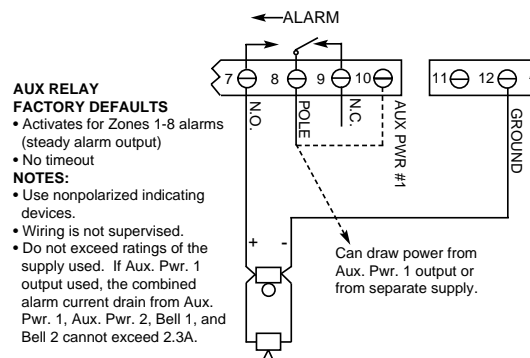
Figure 14-1. Auxiliary Relay Used as Unsupervised Bell Output

When you set field 3*61 to 1, you can also program the auxiliary relay to give a brief activation for confirmation of arming (field 3*57) or for entry/exit or perimeter zone faults while Chime Mode is active (field 3*59).

Trouble/Supervisory Activation (3*61 = 0)

You can program steady activation in response to any zone- or system-related trouble condition or to any fire supervisory condition by setting field 3*61 to 0. The alarm remains activated until all fault conditions have been corrected and the [User Code] + OFF has been entered.

4-Wire Smoke Detector Reset (3*61 = 2)

You can program a momentary (6-second) activation at the second entry of the [Security Code] + OFF sequence, which interrupts power to 4-wire smoke detectors connected to hard-wired zones (zones 1-8) or to polling loop zones, allowing the detectors to be reset following an alarm. Power to 4-wire smoke detectors should be wired to the auxiliary relay and to the Auxiliary Power 1 output, as shown in *Figure 14-2*.

Battery Saver (3*61 = 3)

When you set 3*61 to 3, the auxiliary relay will normally be activated (i.e., N.O. and pole contacts will be connected and N.C. contact will be open) and will de-activate 4 hours after the start of an AC power failure. If you use this feature, noncritical loads (such as supplementary keypads) which do not need to be supported for the full 24-hour battery backup period can be disconnected from the auxiliary outputs, allowing you to use a smaller-capacity battery. The relay re-activates within a few seconds after AC power is restored.
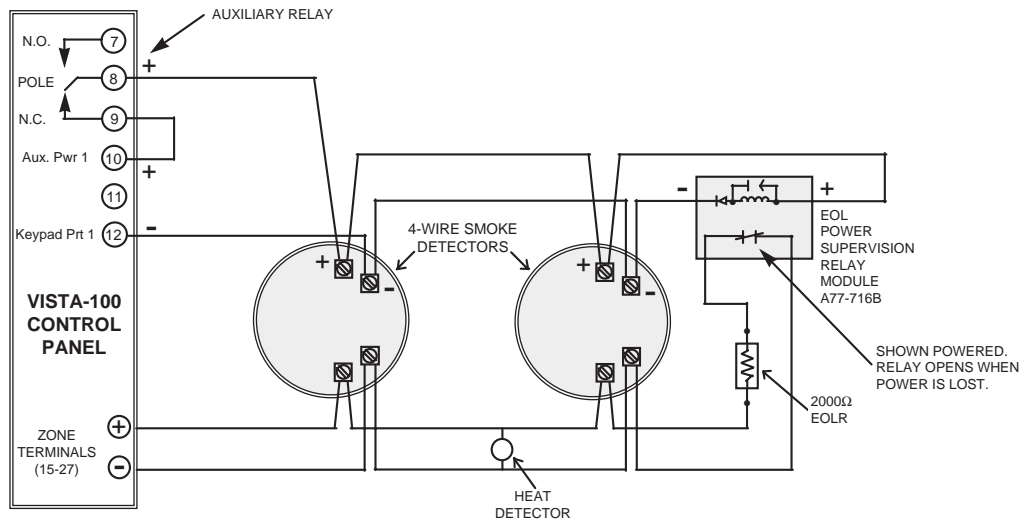
Four-Wire Detector Circuit

Figure 14-2. Auxiliary Relay Used for Resetting 4-Wire Smoke Detectors

Dialer Outputs

In This Section

♦ *Dialer Outputs Available*

♦ *Telephone Line Connections*

♦ *Telephone Line Supervision*

♦ *Dialer Operation*

Dialer Outputs Available

The VISTA-100 provides one main built-in dialer for communication to the central station and one optional 5140DLM backup dialer, both supervised for voltage and current on the phone lines.

Telephone Line Connections

Using the RJ31X cables supplied, connect outputs from the main dialer and the backup dialer (if one is used) to telephone company lines that provide loop start service. *Do not connect to telephone company lines that provide ground start service.*

The 5140DLM backup dialer mounts to the main PCB shield and connects to the main PCB J3 connector using a ribbon cable (supplied with the module) as shown in the Summary of Connections diagram on the inside back cover of this manual.

UL

For UL Listed Fire Central Station (UL864/NFPA 72) applications, use a LORRA alone, the main dialer with the LORRA, or the main dialer with the 5140DLM Backup Dialer. For UL Listed Fire Remote Station (UL864/NFPA72) applications, use the main dialer with the 5140DLM backup dialer. Telephone line supervision is required for UL Commercial Fire alarm systems when a dual line dialer is used for fire signal transmission.

Telephone Line Supervision

The supervision circuits on both dialer outputs will indicate a fault when the tip/ring voltage falls below approximately 25 volts (13 volts for the main dialer when the main PCB blue jumper is cut; 13 volts for the backup dialer when its blue jumper is cut) and when the handset current is less than approximately 10mA.

Faults on the phone lines are displayed as zones 974 (main dialer) and 975 (backup dialer).

- DO NOT connect both outputs to the same telephone company line.
- Connect the earth ground screw on the 5140DLM to the earth ground screw (terminal 30) on the main PCB using 16 AWG wire.
- Cut the blue jumper when the dialer outputs are connected to telephone lines that have a telephone company MTU installed.

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

- If the communicator is connected to a telephone line inside a PABX, be sure the PABX has a backup power supply that can support the PABX for 24 hours (central station usage) or 60 hours (remote station usage). Many PABXs are *not* backed up for power, and connection to such a PABX will result in a communication failure if power is lost.

Dialer Operation

When you enable only the main dialer by setting field 3*30 to 1,0, the VISTA-100 will attempt to route all calls over the main output. When you enable both main and backup dialers by setting field 3*30 to 1,1, the VISTA-100 will attempt to route all calls over the main output until a fault is detected, at which time it will attempt to use the backup output. Line faults will result in a "Zone 974-DIALER 1 FAULT" or "Zone 975-DIALER 2 FAULT" display.

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. After the eighth attempt, the communicator will hang up and "COMM FAIL" will be displayed at the keypad.

You program the number of dialer attempts in field 3*21 (the default is 8; it must be restricted to 3, 4, or 5 attempts if a secondary phone number is programmed).

The system will not switch to the backup dialer unless it detects a fault (low voltage and low current) on the main telephone line. This means that if a report does not go through on the main phone line due to a programming error, the backup dialer will not be activated.

The VISTA-100 will transmit reports in the following order:

- alarms (fire, medical/panic, burglary)

- fire supervisories and troubles

- remaining types of messages

See *Section 24: System Communication* for a description of communication formats, the types of messages transmitted by the panel, and dialer programming defaults.

Event Log Options

In This Section

♦ *General Information*

♦ *Event Log Printer Connections*

♦ *Programming Event Log Options*

♦ *Event Logging Procedures*

General Information

The VISTA-100 has the ability to record up to 224 events of various types in a history log. Each event is recorded in one of six categories with the time and date of its occurrence (if the real-time clock is set). These categories are:

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

The log can be viewed (Display Mode) on an alpha keypad, or printed (Print Mode) on a serial printer connected to the system via a 4100SM Serial Interface Module.

Event Log Printer Connections

The VISTA-100's event log can be printed on a local serial printer. If the event log is used, program field 3*19 must be set to 1.

The event log setting overrides the functions for INPUT 1 and OUT 2 that you programmed in field 3*20.

To enable event log printing, take the following steps:

Connect a UL EDP Listed serial printer to the J2 connector using an ADEMCO 4100SM Interface module, as shown in *Figure 16-1.*

Configure the printer according to the following requirements:

- 8 data bits, no parity, 1 stop bit
- 300 or 1200 baud (1200 preferred)
- Hardware handshaking using DTR signal
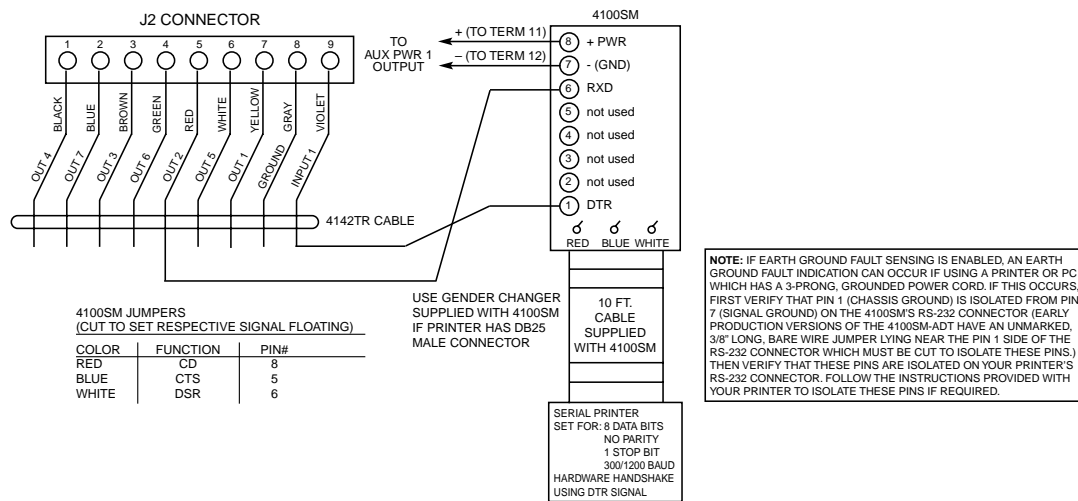
Figure 16-1. Event Log Printer Connections

The 4100SM Module is supplied with a 10-foot RS232 cable. A longer cable or an extension cable can be used if the VISTA-100 and serial printer are separated by more than 10 feet, but the total cable length should be less than 50 feet.

You must connect the 4100SM Module to the panel using the distance of the trigger cable. The wires *cannot* be lengthened to mount the module in a remote location.

Most printers either ignore the CTS, DSR, and CD signals, or require them to be high (i.e., 3-15VDC as measured on RS232 DB25 connector pins 5, 6, and 8, respectively, with respect to ground pin 7).

The 4100SM Module sets these pins high. If the printer you are using will not operate with these pins high, then clip the blue (CTS), white (DSR), or red (CD) jumpers on the 4100SM Module to set the corresponding signal floating. Important pins on the RS232C cable are pin 3 (data out), pin 7 (ground), and pin 20 (DTR - ready).

The DTR signal, as measured at 4100SM TB1, should be high (9.5-14VDC) when the printer is powered, properly connected, on-line, and ready to print. This signal will be low (0-1.5VDC) when the printer is not powered, not properly connected, off-line, or out of paper. The VISTA-100 will not send printing data to the printer unless the DTR signal is high.

Programming Event Log Options

To program event log options, take the following steps:

1. When you have wired at least one alpha keypad (6139/6139R) and set it to a proper address, temporarily apply power to the system.

2. Enter Data Field Programming Mode by entering **[Installer Code]** + **8 0 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∗72 EVENT LOG PRINTER ON-LINE (**0** = disable; **1** = enable)
   1∗73 PRINTER BAUD RATE (**1** = 300; **0** = 1200)

4. Enter **#93** Report Code Programming Mode to program report codes for the event log (System Group #4 codes).

5. Exit Program Mode by pressing ***99**.

NOTE: For more information about actual programming procedures, see *Section 18: The Mechanics of Programming.*

Event Logging Procedures

In order for proper time and date stamping to occur, you must set the system's real-time clock. Refer to *Section 26: Setting the Real-Time Clock.*

If you have programmed the printer to be "on-line" in field 1*72, events will print automatically as they occur. To enter display or print mode on demand, or to clear or exit the event log, enter the following commands:

If you want to. . .	Enter. . .
Enter Display Mode:	Installer or Master Code + [#] + [6] + [0]
Enter Print Mode:	Installer or Master Code + [#] + [6] + [1]
Clear Event Log:	Installer or Master Code + [#] + [6] + [2]
Exit Event Log:	✳

Display/Printing: After the system enters either the Display or Print mode, the keypad will display the following:

ENTER 0 = RECENT
1 = COMPLETE

The event log holds up to 224 events. To display or print all events in a category, enter **1** (COMPLETE). To display only the events that have occurred since the last time you entered a Clear Event Log command, enter **0** (RECENT). (Note that once the event log is full, the oldest event will be erased upon the logging of any new event.) The keypad will display the next prompt.

SCAN LOG BY PART
0=NO 1-8=PART #

The system allows you to view the event log for a specific partition or for all partitions. To view the event log for all partitions, enter **0**. Enter the partition number to view the event log for that specific partition. Events are displayed in chronological order, from most recent to oldest.

Within each partition, events are divided into five categories. To view the events in these categories, scroll through these displays by pressing 3 to scroll forward or 1 to scroll back.

ALARM EVENT LOG
TYPE   CCC UUU

Display shows time/date for zones that have either caused an alarm or have been restored in the partition you selected.

CHECK EVENT LOG
TYPE   CCC UUU

Display shows time/date for zones that have caused a trouble or supervisory condition in the partition you selected.

BYPASS EVENT LOG
TYPE   CCC UUU

Display shows time/date for zones that have been bypassed in the partition you selected.

OP/CL EVENT LOG
TYPE   CCC UUU

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

SYSTEM EVENT LOG
TYPE   CCC UUU

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

| ALL EVENT LOG
TYPE   CCC UUU | Display shows all categories of events in chronological order from most recent to oldest. |

| TEST EVENT LOG
TYPE   CCC UUU | Display shows all test events. |

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

If the system is in Display Mode, the most recent event is displayed. Press **1** to display older events; press **3** to display more recent events.

If the system is in Print Mode, the first time you press **8** the printer will print all events in the category you selected, with each event automatically scrolled on the display keypad. For example, if the event log shows an event had occurred in zone 3 at 12:02, you will see this display:

| P8 01/01
BURGLARY | A burglary alarm occurred in zone 3 of partition 8 at 12:02AM on January 1. |

After you display the last event in the category you selected by pressing either **1** or **3**, the following display will appear for a few seconds:

| END OF EVENT LOG
TYPE   CCC UUU | After this display, you will see the following: |

| CLEAR EVENT LOG
0=NO 1=YES | Press **1** to clear the event log from memory. All events in the log will still be displayed if you selected the "Complete" option. Only those events occurring from the time of the "Clear" command will be displayed if you selected the "Recent" display option. Press **0** if you do **not** want to clear the event log.

If you press **1**, the following display will appear: |

| ARE YOU SURE?
0=NO 1=YES | Press **1** if you want to clear the event log. Press **0** if you do not want to clear the event log. |

SCREEN DEFINITIONS

RECENT	Events since last CLEAR
COMPLETE	Displays all events
TYPE	Type of event (Burg., Fire, etc.)
CCC	Zone (contact) number
UUU	User number

Final Power-Up Procedure

In This Section

♦ *Connecting the AC Transformer*

♦ *Backup Power Calculations*

♦ *Connecting the Backup Battery to the Control*

Connecting the AC Transformer

When you are using the PS24 Power Supply, use the ADEMCO 1451-24 Transformer to power the VISTA-100 control and the PS24 Power Supply module. This transformer provides an 18VAC, 72VA secondary winding for powering the control and a 30VAC, 188VA secondary winding for powering the PS24.

When you are **not** using the PS24 Power Supply, use the ADEMCO 1451 Transformer with enclosure (supplied) with the VISTA-100 control. The 1451 Transformer provides 18VAC/72 VA secondary winding for powering the control.

The control panel kit that you purchased includes the appropriate transformer. Both transformers have a manually resettable circuit breaker mounted inside a protective metal enclosure.

Follow the instructions below for mounting the enclosure and for wiring the 18VAC winding of either transformer. Follow the instructions provided with the PS24 for wiring the 30VAC winding of the 1451-24 Transformer.

Before connecting the AC transformer, connect all zone, polling loop, keypad, auxiliary device, and bell circuit wiring. To mount and wire the 1451 Transformer, take the following steps:

1. Remove the front cover of the enclosure.

2. Mount the enclosure to the wall near the VISTA-100 panel. The enclosure has 4 mounting holes on its back surface for this purpose.

3. Run 120VAC wiring to the enclosure in conduit. *You must use a dedicated circuit.* Use wire nuts to splice the 120VAC wires to the transformer's white and black primary leads. Connect the earth ground post on the back of the enclosure to a good earth ground (see "Connecting the Panel to Earth Ground" below).

4. Use wire nuts to splice the transformer's blue 18VAC secondary leads to a 16AWG wire, which is run in conduit to the panel. These wires are connected to panel terminals 1 and 2.

- Use wires that have insulation rated for at least 90°C operation and that are suitable for non-power limited applications.

- Use care to keep 18VAC wiring separated from all other wiring inside the panel's enclosure. Do this by running non-power limited 18VAC wiring into the panel's enclosure via one of the knockouts on the left side of the enclosure, and then tie-wrapping these wires to the tie-wrap loops located near the knockout.

5. Replace the front cover of the enclosure and fasten it with the screws supplied.

A few seconds after power is applied to the control, the keypad should display "DISARMED...READY TO ARM." If there is no keypad display, verify that the 1451 Transformer is supplying proper voltage to the panel (about 17-19.5VAC when the power line voltage is 110-120VAC).

Connecting the Panel to Earth Ground

1. Connect the earth ground post inside the 1451 enclosure to a good earth ground (use grounding methods specified in the National Electric Code). Use a green wire nut (supplied) to secure the wire to the ground post. The earth ground wire should be the only wire under this nut.

2. Run a 16AWG wire from the ground post to the panel's earth ground terminal (terminal 30). Use a second green nut (supplied) to secure this wire to the ground post. This method of connection avoids ground loops that may occur when the 1451 and panel are connected to different earth ground systems.

The panel requires this connection in order for its lightning transient protection devices and earth ground supervision to function properly.

Backup Power Calculations

In the event of an AC power loss, the VISTA-100 control (and PS24 Power Supply module, if used) must be supported by a backup, rechargeable, lead acid (gel cell type) battery. When the VISTA-100 control is used without a PS24, a 12VDC, 12AH minimum/34.4AH maximum battery must be connected to it. When it **is** used with the PS24, two 12V, 7AH minimum/17.2AH maximum batteries must be connected to the PS24. The PS24 configures these batteries to provide 24V backup power to its outputs, and 12V backup power to the control.

The battery's capacity must be sized to provide 24 hours (UL Central Station Fire) or 60 hours (UL Remote Station Fire) of standby time followed by 5 minutes (fire only) or 15 minutes (fire/burglary) of alarm time.

To determine the battery capacity you need, take the following steps:

1. If you are using the polling loop, fill out the Polling Loop Current Draw Worksheet below to determine the total current drawn from the polling loop.

2. Fill out the Total Control Panel Load Worksheet below to determine the total standby and alarm load drawn from the control's internal 12V power supply.

3. If you are using the PS24, fill out the Total PS24 Module Load Worksheet in the PS24's instructions to determine the required capacity of the backup batteries that must be connected to the PS24. Select from the Battery Selection Table in the PS24's instructions two 12V batteries that have a capacity greater than or equal to the capacity you calculated.

When you calculate standby capacity, use 24 hours for Central Station Fire and 60 hours for Remote Station Fire in the standby capacity formula.

4. If you are not using the PS24, fill out the Battery Capacity Calculation worksheet following the other worksheets to determine the required capacity for the backup battery.

Select one of the batteries (listed in the Battery Selection Table later in this section) which has a capacity greater than or equal to the battery capacity you calculated.

Connecting the Backup Battery to the Control

If you are not using the PS24, connect the battery (or batteries) to the VISTA-100 as shown in *Figure 17-1*.

If you are using the PS24, connect the backup batteries to the PS24 using the cables supplied with the PS24 as shown in the PS24's instructions. Both the VISTA-100 and the PS24 run brief battery tests every 60 seconds to determine whether a battery is connected. If a low or disconnected battery condition is detected, a message will be displayed on the control's keypad. Refer to *Section 29: Testing the System* for more detailed information.

NOTE: WHEN CONNECTING BSTTERIES IN PARALLEL:
• USE BATTERIES FROM THE SAME MANUFACTURER AND WITH THE SAME VOLTAGE AND CAPACITY RATING.
• USE BATTERIES OF APPROXIMATELY THE SAME AGE AND STATE OF CHARGE.
• USE CABLES PROVIDED AND **OBSERVE POLARITY!**
• IT IS RECOMMENDED THAT ALL BATTERIES BE REPLACED AT THE SAME TIME, EVEN IF ONLY ONE BATTERY HAS BECOME WEAK.
• AS LONG AS THE GOOD BATTERY REMAINS CONNECTED, THE ONCE-PER-60-SECOND BATTERY TEST WILL NOT DETECT THE DISCONNECTION OF REMAINING BATTERIES.

Figure 17-1. Connecting the Backup Batteries to the Control

POLLING LOOP CURRENT DRAW WORKSHEET

Refer to *Section 7: 2-Wire Polling Loop Expansion* for device restrictions for fire and burglary usage.

RPM DEVICE	CURRENT	# OF UNITS	TOTAL
4194 Contact	1mA		
4192SD Photo Smoke	0.4mA		
4192SDT Smoke w/Heat	0.4mA		
4192CP Ion Smoke	0.4mA		
4275 Dual PIR	1 .0mA		
4278 Quad PIR	1.0mA		
4190 2-Zone RPM	1mA (LOW)		
4190 2-Zone RPM	2mA (HIGH)		
4208 8-Zone RPM	16mA		
4191SN Recessed Contact	1.0mA		
4939SN Surface Mount Contact	1.0mA		
TOTAL Cannot exceed 128MA*			

* The total current cannot exceed 128mA. If the total load exceeds 128mA, then a 4297 Loop Extender Module can be used. This module is powered from the panel's auxiliary power and provides a separate polling loop output that can support an additional 128mA load. Note that the total number of points connected to the panel cannot exceed 79.

Total Control Panel Load Worksheets

To calculate the total current for the Aux. Power 1, Aux. Power 2, Bell 1 and Bell 2 outputs and polling loop current, multiply each device's standby and/or alarm current by the number of units used.

1. Enter devices used on Aux. Power 1 output, calculate standby and alarm currents, then add to get Aux. Power 1 current subtotal.

AUX. POWER 1 OUTPUT			Total Current	
Device Model #	Device Current X No. of Units	=	Standby	Alarm
Aux. Power 1 Output Subtotal (terminals 10 & 11)			1.0A max	1.7A max

2. Enter devices used on Aux. Power 2 output, calculate standby and alarm currents, then add to get Aux. Power 2 current subtotal.

AUX. POWER 2 OUTPUT			Total Current	
Device Model #	Device Current X No. of Units	=	Standby	Alarm
Aux. Power 2 Output Subtotal (terminals 10 & 11)			1.0A max	1.7A max

3. Enter devices connected to Bell 1 output, calculate alarm currents, then add to get Bell 1 output current subtotal.

BELL 1 OUTPUT			Total Current	
Device Model #	Device Current X No. of Units	=	Standby	Alarm
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
Bell 1 Output Subtotal (terminals 3 & 4) 1.7 amp max			XXXXXX	

4. Enter devices connected to Bell 2 output, calculate alarm currents, then add to get Bell 2 output current subtotal.

BELL 2 OUTPUT			Total Current	
Device Model #	Device Current X No. of Units	=	Standby	Alarm
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
Bell 2 Output Subtotal (terminals 5 & 6) 1.7 amp max			XXXXXX	

5. Enter the total polling loop using values calculated in the polling loop worksheet.

POLLING LOOP	Total Current	
	Standby	**Alarm**
(Enter worksheet total in both standby & alarm columns) Polling Loop Subtotal		

6. Enter total calculated subtotals of all listed outputs, then add to get the combined current.

COMBINED AUX. POWER, BELL AND POLLING LOOP	Total Current	
	Standby	**Alarm**
Aux. Power 1 Output Subtotal		
Aux. Power 2 Output Subtotal		
Bell 1 Output Subtotal		
Bell 2 Output Subtotal		
Polling Loop Subtotal		
Add all subtotals (Cannot exceed 1.0 amp max. standby; 2.3 amp max. alarm)		

7. These values are fixed.

VISTA-100 PCB CURRENT	Total Current	
	Standby	**Alarm**
Includes 2-wire smoke detector loading on zones 1 & 2 and trigger output currents	300mA	470mA
5140DLM Backup Dialer Module	5mA (inactive)	15mA (inactive)

*The 5140DLM actually draws 55mA when it is active. However, since the VISTA-100's PCB current includes the built-in main dialer current, and since the main dialer is inactive when the 5140DLM is active, the 5140DLM imposes only 15mA of added current on the power supply.

8. Enter the calculated combined current, then add to total PCB current.

TOTAL CONTROL PANEL LOAD	Total Current	
	Standby	**Alarm**
Combined aux. power, bell, and polling loop total		
Total PCB current		
Total control panel load		

- When you are not using the PS24, the total control panel standby load must be limited to 1.27A for 24-hour standby time, or to 510mA for 60-hour standby time using a 12V, 34.3AH battery connected to the control.
- When you are using the PS24, skip the worksheet shown below and fill out the worksheets found in the PS24's instructions instead. The total control panel standby load must be limited to 919mA for 24-hour standby time or 345mA for 60-hour standby time using two 12V, 17.2AH batteries connected to the PS24.

BATTERY CAPACITY CALCULATION WORKSHEET

For burglary installations requiring 4-hour standby time followed by 15-minute alarm time, use a 12AH battery to support all loads up to and including the maximum system load (i.e., 1.3A standby/2.8A alarm for total control panel load). For fire installations requiring 24-hour or 60-hour standby time, use the worksheet below to calculate the required battery capacity.

9. Using the total calculated power supply load (step 8), calculate the battery capacity required for the installation.

Capacity	Formula	Calc Value
Standby Capacity	Total standby load x 24 or 60 hours x 1.1 contingency factor (use total standby load from the previous worksheet)	
Alarm Capacity	Total alarm load x 0.083 hours (5 minutes) or 0.250 hours (15 minutes) (use total alarm load from previous worksheet)	
Total Capacity	Add standby and alarm capacities	

BATTERY SELECTION TABLE
(The following batteries will fit inside the VISTA-100 cabinet)

10. Using the battery capacity from step 9, select the appropriate battery.

12 AH	Yuasa NP12-12
14 AH	Yuasa NP7-12 (connect 2 in parallel)
17.2 AH	Yuasa NPG18-12
24 AH	Yuasa NP12-12 (connect 2 in parallel)
28 AH	Yuasa NP7-12 (connect 4 in parallel)
34.4 AH	Yuasa NPG18-12 (connect 2 in parallel)

The Mechanics Of Programming

- -

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

You can program many system options through Data Field Program Mode. The field numbers on the program form show the number of entries required for each field. When you complete an entry, the keypad beeps three times and advances to the next field. You can then either make the required entry in the new field, or press ✳ followed by the next field number you want to program.

There are several "question and answer" modes, called "Menu" modes, that can be accessed once you enter Data Field Program Mode. These modes prompt you for information, and for this reason, a 2-line alpha keypad (6139/6139R) 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. You can change these values to suit specific needs.

- 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.

- The defaults can be changed directly from the 6139(R) alpha keypad or they can be changed by using V-LINK downloading software (be sure that the software version you use includes the VISTA-100).

You can download 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. You must use a keypad that is set to one of these addresses in order to program the system.

Entering Data Field Programming Mode

Enter Data Field Program Mode using one of these methods:

- Press both the ✳ and [#] keys at the same time within 30 seconds after power is applied to the control.
- Enter **[Installer Code]** + **8** + **0** + **0** + **0**. You can change the Installer Code in field *00 in the Program Mode.

> You can disable local keypad programming through V-LINK downloading software. If you do this, you can only program via the downloading software.

Moving from One Page of Programming to Another

The data fields are grouped into four levels (referred to as "pages"). You access the first page as soon as you enter Programming Mode.

The second, third, and fourth pages of data fields are indicated at the keypad by a 1, 2, and 3, respectively, in front of the 2-digit field address. The words "ALT PROGRAM MODE" along with a "100," "200," or "300," depending on which page of program fields is accessed, indicate the higher page of fields.

To move from page to page, take the following steps:

1. To access the next-higher level of fields, press ✳94.

2. 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.

For example:

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)

Press ✳94 to move to 4th page   Press ✳99 to move back to 3rd page

> fourth page of fields
> (3✳00–3✳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 you enter an address improperly, the keypad will display "FC."

- If a program entry is improperly entered (for example, if you enter too large a number), the keypad display will go blank.

- In either of the above cases, simply re-enter ✳ plus the correct field number.

SUMMARY OF DATA FIELD PROGRAMMING COMMANDS	
✳94	View the next page of fields
✳99	View the previous page of fields or exit Programming Mode with no Installer Code lockout
✳91	Select partition for programming partition-specific fields
✳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 skipped automatically. To program system-wide data fields, take the following steps:

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

2. After you enter Program Mode, you will see this display:

> 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 number of the first field you want to program. For example, if you want to change the Installer Code, enter ✳**00**.

5. Make the desired entry. When the field is complete, the keypad will beep three times and advance to the next field. If you do not want to change the next field, press ✳ and enter the number of the next field you want to program. The keypad will skip any fields that are partition-specific. If you want to enter a partition-specific field, you must press ✳ and then enter its number.

> First Page of fields
> (✳00–✳90)

Press ✳99 or ✳98 to exit Program Mode

If the number of digits that you enter in a data field is less than the maximum permitted (for example, a phone number), the keypad will not advance automatically. To proceed, enter ✳ followed by the number of the next field you wish to program.

6. To page forward to the next set of fields, press ✳**94**. To page back to the previous set of fields, press ✳**99**.

Programming Partition-Specific Data Fields

To program partition-specific data fields once you are in Program Mode, take the following steps:

1. Press ✳**91.** The system will prompt you for the partition number.

2. Enter a partition-specific field number, such as ✳09, to begin programming. When you complete this field, the next partition-specific field will automatically be displayed. When all partition-specific fields have been programmed, the system returns to the global programming fields (page 1 fields). To return to the global programming fields before

you have finished entering the partition-specific fields, enter the number of any global field.

Repeat Steps 1 and 2 for each partition in the installation.

The table below summarizes the steps you take in programming partition-specific fields:

PROGRAMMING PARTITION-SPECIFIC FIELDS
Press ✱91.
↓
Enter the number of the partition you want to program.
↓
Enter a partition-specific field number and make the entry.
↓
After you have programmed all the partition-specific fields, press ✱91 to select next partition.
Enter any global field number to return to programming global fields at any time.
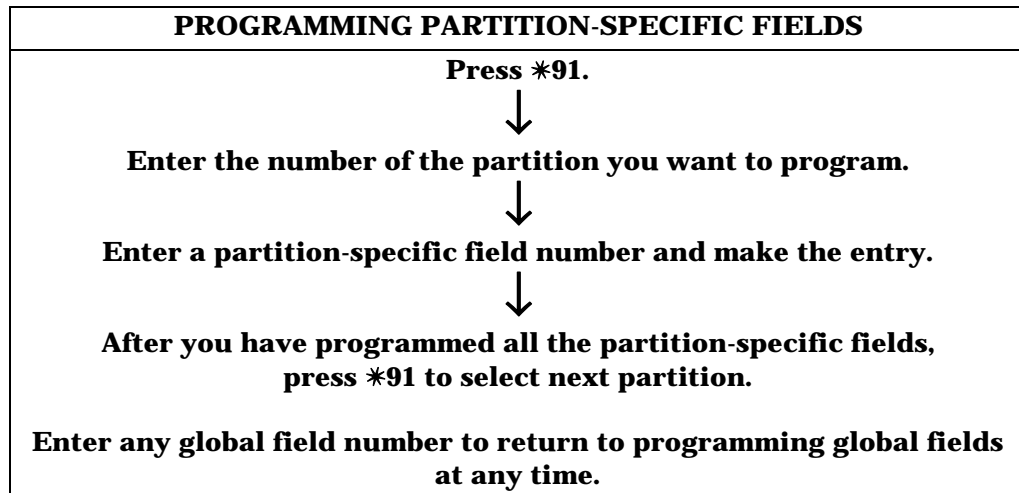
#93 Menu Mode Programming

You can do much of the system's programming through the #93 Menu Mode. When you enter #93 Menu Mode, you will see each of these menu items in sequence:

• Zone Programming
• Serial Number Programming
• Report Code Programming
• Alpha Programming
• Device Programming
• Relay Programming
• Relay Voice Descriptors
• Custom Index Programming (VIP Module substitute words)

At each menu item, you can press **1** or **0**. If you press **1**, the keypad will display questions for that menu item. If you press **0**, it will display the next menu item. (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

Press:	If you want to:
#93	Enter Menu Mode
✱	Accept entry
[#]	Return to previous screen
0	Continue with the next menu item
1	See the prompts for the current menu item
00 + ✱	Return to Data Field Programming Mode (enter at the first prompt of any menu option)

Zone Type Definitions

- -

In This Section

♦ *Zone Number Designations*

♦ *Zone Type Definitions*

- -

Zone Number Designations

The VISTA-100 supports up to 86 zones of hardwire, polling loop, and/or wireless protection, distributed among up to 8 partitions. The following table lists the zone numbers and the types of sensors that can be used with each in this system:

Zone	Sensors
1 & 2	2-wire smoke detectors (if used)
7	Keyswitch (if used)
8	Latching-type glassbreak detectors (if used)
1-8	Traditional hardwired zones
1-63	5700 Series wireless devices
1-87	5800 Series wireless devices
10-87	Polling loop devices
995	☒ /1 panic
996	[#] /3 panic
999	☒ / [#] panic

Zone Type Definitions

You must assign a zone type to each zone. The zone type defines the way that the system responds to faults in that zone. 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 you arm the control in the AWAY or STAY mode. When you arm the panel in the INSTANT or MAXIMUM mode, no entry delay is provided. Exit delay begins whenever you arm the control, regardless of the arming mode you select. These delays are programmable. Assign this zone type 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 you arm the panel in the AWAY and STAY modes. When you arm the panel 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 you select. These delays are programmable. Assign this zone type to sensors or contacts on doors where more time is needed to get to and from the keypad (for example, a garage, loading dock, or basement door). Delay times for this zone type must be greater than Zone Type 01.

Type 03: Perimeter Burglary

This zone type gives an instant alarm if the zone is faulted when you arm the panel in the AWAY, STAY, INSTANT or MAXIMUM mode. Assign this zone type 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 you arm the panel in the AWAY or MAXIMUM mode. MAXIMUM mode eliminates the entry delay. **This zone type is bypassed automatically when you arm the panel in the STAY or INSTANT mode**. Assign this zone type to a zone covering an area such as a foyer, lobby, or hallway through which the user must pass upon entry or exit, after faulting the entry/exit zone to reach the keypad to disarm the system.

Because 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 before the system is 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). Assign this zone type to a zone which 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. This zone type 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. Assign this zone type 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. Assign this zone type to a zone that has an Emergency button.

Type 08: 24-Hour Auxiliary Alarm

This zone type sends a report to the central station and provides an alarm sound at the keypad. **(No bell output is provided.)** Assign this zone type 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 a short circuit, and a trouble condition on an open circuit. Program the bell output 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 it is tripped when you arm the panel in the AWAY mode. This zone type is also active during MAXIMUM mode, but no entry delay is provided (alarms occur immediately if the zone is tripped). **This zone type is automatically bypassed when you arm the panel in the STAY or INSTANT mode.** Delay begins whenever sensors in this zone are violated, regardless of whether an entry/exit delay zone was tripped first.

NOTE FOR PANIC KEYS: Keypad panic zones share the same zone response type for all 8 partitions, but panic zones may be individually enabled for each partition.

Type 16: Fire With Verification

This zone type is used when you want smoke alarm verification on hardwire and polling loop zones containing only 2-wire or 4-wire smoke detectors. An open will initiate a trouble response, and a short will initiate a fire alarm

response. Initial short detection causes 6-second smoke detector power reset. A subsequent short detection within 90 seconds of reset causes a fire alarm.

Type 17: Fire Waterflow
An open on this zone causes a trouble response. Shorts that remain present longer than the programmed time delay (fields 3✳16 and 3✳18) cause a fire alarm response. This zone can either be silenced by pressing [Code] + OFF or when waterflow restores (programmed in field 3✳14).

Type 18: Fire Supervisory
Assign this zone type to a zone having sensors that monitor fire sprinkler systems (i.e., PIV switches, etc.). An open on this zone causes a trouble. Shorts can be programmed either for a trouble response or an alarm response based on the entry in data field 3✳13.

Type 19: 24-Hour Trouble
An open or short on this zone type causes a trouble response. No external alarm sounders are activated.

Type 20: Arm-Stay*
This is a special-purpose zone type used with 5800 Series wireless transmitters, which results 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 results 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 results in disarming the system when the zone is activated.

Type 23: No Alarm Response
Use this zone type on a zone when you want an output relay action, but no accompanying alarm (for example, lobby door access).

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

IMPORTANT! FAULT ANNUNCIATION
Polling loop and RF troubles (zones 988, 990, and 997) will report as trouble conditions only. If you want an audible alarm, assign them to zone type 19. See Polling Loop Supervision notes in *Section 7: 2-Wire Polling Loop Expansion*; and *Section 8: Wireless Zone Expansion* for more information.

Zone Index/Zone Type Defaults

• •

In This Section

♦ *Zone Index*

♦ *Zone Type Defaults*

• •

Zone Index

The VISTA-100 has 87 protection zones, as well as supervisory zones for relays, ECP devices (devices which communicate through the keypad terminals), and system troubles. These zones are designated as follows:

ZONE NUMBER RANGE	ZONE FUNCTION	ACTUAL ZONE NUMBER
001 - 087	Protection zones	As indicated
601 - 616	Relay Supervisory Zones	6 + 2-digit Relay Number; e.g., Relay Number 03, if supervised, is zone 603.
800 - 831	ECP Device Supervisory Zones (includes keypads, wireless receivers, VIP Module, relay modules, etc.)	8 + 2-digit Device Address; e.g., Device Address 01, if supervised, is zone 801. The 4285/4286 VIP Module is zone 804 (because its Device Address must be set to 4).
900 - 990 and 997	System Supervisory Zones	970: Bell Output 1 971: Bell Output 2 972: Earth Ground 973: J2 Input 1 (LRR) 974: Dialer 1 975: Dialer 2 976: Auxiliary Relay 977: J2 LRR Trigger Outputs 988: 2nd Wireless Receiver - not receiving signals 990: 1st Wireless Receiver - not receiving signals 997: Polling Loop (short circuit)
991 - 999	Keypad Panics	995: 1+ ✱ panic (A key) 996: 3 + [#] panic (C key) 999: ✱ + [#] panic (B key)

Enable response types for zones in #93 Menu Mode Zone Programming. Supervisory zones should be given a response type of either 19 (24-hr. trouble) or 05 (trouble by day, alarm by night).

Zone 976 is assigned to the built-in Auxiliary Relay output so you can allow the operation of the relay to be bypassed. Zone 977 is assigned to the J2 LRR Output Triggers so you can allow the operation of the outputs to be bypassed.

Zone Type Defaults

The following tables detail the zone type defaults for zones on the VISTA-100:

Zone #	Zone Type
001	09
002	09
003	03
004	03
005	03
006	03
007	03
008	03

Zone #	Zone Type
009–087	00
601–616	19
800–831	00
970	00
971	19
972	19
973	19
974	19

Zone #	Zone Type
975	00
988	00
990	00
995	00
996	00
997	19
999	06

Data Field Descriptions

• •

The following is a description of all data fields provided by the VISTA-100. If you have followed earlier instructions during the installation of the various devices, many of these fields will already have been programmed. The field default values are shown in brackets.

For more information about actual programming procedures, see *Section 18: The Mechanics of Programming.*

*00 INSTALLER CODE
| | | |

The Installer 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 it was not used to arm the system. You cannot use this code to re-enter Programming Mode if you exited by using the *98 command.

*08 TEMPORAL SIREN PULSE
[0] | |

If you program either bell for pulsing (program field 3*15), the Temporal Siren Pulse field will determine the rhythm and rate of pulsing as follows: If you enter **1** to enable, the pulse rate will be three dings followed by a pause, then repeated. If you enter **0**, the pulse rate will be 1 sec. on, 1 sec. off.

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

Entry Delay defines the delay time during which a user can re-enter the premises through a door (that was programmed for entry delay) and disarm the system without sounding an alarm. The number you enter is multiplied by 15 seconds to calculate the delay time. The valid range is from **0** (no delay) to **15** (for a delay of 225 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 was programmed for entry/exit delay) after arming the system, without setting off the alarm. The system multiplies the number you enter by 15 seconds to calculate the delay time. The valid range is from **0** (no delay) to **15** (for a delay of 225 seconds). For zones assigned to Zone Type 01.

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

Use Entry Delay #2 to set the delay time for a secondary door requiring a longer delay than that assigned to Entry Delay #1.

This delay may not exceed 45 seconds for UL Commercial Burglary installations.

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

Use Exit Delay #2 to set the delay time for a secondary door requiring a longer delay than that assigned to Exit Delay #1.

This delay may not exceed 60 seconds for UL Commercial Burglary installations.

*13 BELL 1 TIMEOUT (partition-specific)   [04] ☐

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

For UL Commercial Burglary installations, the minimum is **8** (for 16 minutes). For UL
Commercial Fire installations, the minimum is **3** (for 6 minutes).

*15 KEYSWITCH ASSIGNMENT   [0] ☐

Enter the partition number (**1-8)** in which the keyswitch is to be used. Enter **9** if the
keyswitch is to be used to silence fire bells in the event of a fire alarm. Enter **0** if the
keyswitch is not used.

Requires the use of zone 7 wired loop (zone 7 is no longer available as a protection zone
when it is 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 No. 0 if reporting is enabled in field *40.

*16 BELL 1 CONFIRMATION OF ARMING DING (partition-specific)   [0] ☐

Enter **1** to enable a half-second external alarm sounding ("ding") at the end of the exit
delay (or after kissoff from the central station, if sending closing reports). Enter **0** if
you do not want the sounding.

You must enter **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** if you want the keypad to emit a rapid beeping sound about 2 minutes after AC
power is lost. Enter **0** if you don't want keypad sounding on AC power loss.

*18 BELL 1 AC POWER LOSS ALARM   [0] ☐

Enter **1** to sound the external alarm sounders connected to Bell Output 1 after AC
power has been out for 4 hours. Enter **0** if you do not want the alarm to sound.

You must enter **1** for UL Commercial Burglary installations.

*19 RANDOMIZE AC LOSS REPORT   [2] ☐

Select this option to help 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 AC loss. Enter
2 to randomize 6 to 12 hours after an AC loss. Enter **0** for normal AC loss reporting
(about 2 minutes after an AC loss).

*20 VIP MODULE PHONE CODE   [00, 11] ☐ ☐

If you are using a 4285/4286 Voice Module, enter the 2-digit phone codes that you use
to access the system.

Enter **01-09** for the first digit; and enter **11** (to represent ✳) or **12** (to represent #) for
the second digit. To disable the voice module, enter **00** for the first digit, and enter **11**
for the second digit of the code.

For Commercial Fire and UL Commercial Burglary installations, you must disable the
voice module.

*22   KEYPAD PANIC ENABLES (partition-specific)   [001] ☐ | ☐ | ☐
                                                                    995 996 999

Enter **1** to enable the appropriate keypad panics used in this partition. Enter **0** if you do not want to enable keypad panics.

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

This field determines whether 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 field applies to local sounding and has no impact on the number of communication messages transmitted. Refer to Swinger Suppression for limiting communication messages.

Enter **1** if you want to use this feature; if not, enter **0.**

You must set this field to **1** for UL installations.

*24   IGNORE EXPANSION ZONE TAMPER   [0] ☐

This feature is only applicable to certain polling loop sensors with tamper switches or 5800 Series transmitters. Use this option to disable tamper detection on these devices.

Enter **1** to disable tamper detection. Enter **0** if you want tamper detection.

For UL installations, you must set this field to **0**.

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

Enter **1** to allow optional triggering of the voltage output on pin 3 of the J2 header to include zone response type 8 (24-hr. auxiliary). Enter **0** if only burglary and audible panic alarms (zone type 7) will trigger pin 3.

*26   INTELLIGENT TEST REPORTING   [0] ☐

Enter **1** if you do not want a test report to be sent if any other type of report was sent since the last test report. Enter **0** if you want test reports to be sent at the set intervals, regardless of whether other reports have been sent.

For UL applications, set this field to **0**.

*27   TEST REPORT INTERVAL   [024] ☐ | ☐

Enter the test reporting interval in hours, **001**-**999.** If you want a test report, enter a test code in #93 REPORT CODE PROGRAMMING mode. Enter **000** if you don't want test reporting. Set the time for the first test report in field *83.

The maximum number of hours for Commercial Fire and UL Commercial Burglary installations is 24.

*28   POWER UP IN PREVIOUS STATE   [1] ☐

With this field, you can set the status of the system when it powers up after a prolonged power loss, if the power loss has caused the battery to discharge. If you enter **1**, the system assumes the status it had before the power loss. If you enter **0**, the system powers 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 a closing as User 0 if you enabled Open/Close reporting for the installer in field *39. Note that if the previous state was armed AWAY or STAY, the system might not respond to sensor changes for a small period of time (1-3 min.). This delay allows sensors such as PIRs to stabilize.

Set this field to **1** for UL applications. Note that you cannot use authority levels 0 or 5 to disarm the system if the control powers up in an armed state.

29 QUICK ARM (partition-specific)   [0]

If you enable Quick Arm, the user can arm the burglary system in AWAY, STAY, INSTANT, or MAXIMUM modes by using the [#] key instead of the User Code. When armed, the system reports a closing as User No. 0 if you enabled Open/Close reporting for User No. 2 (typically a master level user) for a given partition.

To enable Quick Arm, enter **1**. Enter **0** if you do not want to enable Quick Arm. The User Code must always be used to disarm the system.

Note that if Quick Arm is used, you cannot disarm the system with the Installer Code and authority level 5 code.

*30 TOUCHTONE OR ROTARY DIAL   [0]

Enter **1** if TouchTone service is being used. Enter **0** if rotary phone service is used.

If you select TouchTone, verify that the subscriber has requested and is paying for TouchTone service. Note that whether or not TouchTone dialing for call placement is permitted, the system will communicate using DTMF signaling (ADEMCO High Speed). See field 1*33 TouchTone w/Rotary backup.

---

31 PBX ACCESS CODE | | | |

This field is used to enter the prefix needed to obtain an outside telco line. Enter up to four 2-digit numbers: 00-09 and 11 through 15 (where 11 through 15 represent B through F). If no access code is required, enter nothing and proceed to the next address.

*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 through 09; or (representing B through F) 11 through 15. Each number requires a 2-digit entry to allow entry of hexadecimal digits (B-F). If a 3-digit account number is to be used, only enter data in the first 3 locations; enter an asterisk (*) in the last location.

*33 PRIMARY PHONE NUMBER | | | | | | | | | | | | | | | | |

In this field, enter the primary central station phone number, up to 17 digits. The digits you may enter are: **0** through **9**; **#11**, representing an asterisk; **#12**, representing a pound (#) sign; and **#13**, for a 2-second 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 that backup reporting is automatic only if you enter a secondary phone number. The number of times the system attempts to call the primary number before it dials the secondary number is determined in field 3*21.

*34 SECONDARY PHONE NUMBER

| | | | | | | | | | | | | | | | | |

In this field, enter the secondary phone number, up to 17 digits, the same way as in field *33. The system will use the secondary phone number if communication on the primary number is unsuccessful, or if you have requested split/dual reporting. Do not fill unused spaces. If you program this field, you must also program a secondary subscriber account number in field *90. The secondary account number can be the same as the primary account number.

*35 DOWNLOAD PHONE NUMBER

| | | | | | | | | | | | | | | | | |

This field is applicable only if the user will use downloading.

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Enter the downloading phone number, up to 17 digits (the same as in fields *33 and *34). Do not fill unused spaces.

*36   DOWNLOAD ID NUMBER

Enter this number only if the user will use downloading. 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 COMMANDS

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

Each of the various remote functions shown above can be enabled or disabled through V-LINK downloading software. If you disable a function, you will not be able to perform that function from V-LINK. Enter **1** to enable a function, and **0** to disable a function. See field 1*53 to disable the download callback option.

For Commercial Fire and UL Commercial Burglary installations, all entries must be **0**.

*38   PREVENT ZONE XXX BYPASS (partition-specific)   [000] | | |

Enter a zone number (**001**-**087**) to prevent that zone from being bypassed by the user. If you don't want this feature, enter **00**.

*39   ENABLE OPEN/CLOSE REPORT FOR INSTALLER CODE (partition-specific)   [1] | |

Enter **1** if you want Open/Close reporting for the installer. Enter **0 i**f you don't want this feature.

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

Enter **1** if you want to enable Open/Close reporting for the keyswitch. If you don't want this feature, enter **0**.

*41   NORMALLY CLOSED OR EOLR (ZONES 3-8)   [0] | |

Enter **0** if you will use end-of-line resistors. Enter **1** if you will not use them. If you don't use end-of-line resistors, you must use only **normally closed** devices.

Set this field to **0** for Commercial Fire and UL installations.

*42   DIAL TONE PAUSE   [0] | |

This field sets the length of time the system will wait for a dial tone before dialing. You must set this field if you do not select true dial tone in field *43.

Enter the desired wait time for dial tone detection as follows: Enter a single digit: **0** = 5 seconds; **1** = 11 seconds; or **2** = 30 seconds.

You must set this field to **0** for Commercial Fire and UL installations.

*43 DIAL TONE DETECTION   [1] | |

This field determines whether the control will wait for a true dial tone before dialing, or wait for a predetermined delay before dialing (delay is programmed in Dial Tone Pause field *42). A predetermined delay might be necessary in high-noise-environment telco networks where noise can be confused with dial tone, resulting in premature dialing.

Enter **1** if you want the control to wait for a true dial tone. If it does not detect a dial tone, it will dial at the end of the pause that you program in field *42. If you enter **0**, the control will pause for the number of seconds you entered in field *42, then dial.

*44 RING DETECTION COUNT   [00] ⬚

This field is only applicable if you are using a 4285/4286 VIP Module and/or if you will use station-initiated downloading.

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 (the downloader calling again).

This field must be set to **00** for Commercial Fire & UL Commercial Burglary installations.

*45 PRIMARY FORMAT   [0] ⬚

In this field, select 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] ⬚

In this field, select 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] ⬚ ⬚
                                                              Prm. Sec.

Enter **1** if you want either or both primary and 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 you do not want Checksum Verification.

*50 SESCOA/RADIONICS SELECT   [0] ⬚

Enter **0** if you will use Radionics format with hexadecimal 0-9, B-F reporting. Enter **1** if you will use Sescoa format with only numeric reporting (0-9).

Note that your 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 you want to send all reports to both primary and secondary phone numbers. Enter **0** if you do not want dual reporting.

If Dual Reporting is used with Split Reporting option 1 (1*34), alarms go to both the primary and secondary numbers, and all other reports go only to the secondary number. If Dual Reporting is used with Split Reporting option 2, alarms go to both lines; open/close and test messages go to the secondary number only; and all other reports go to the primary number. If Dual Reporting is used with Split Reporting

option 3, fire alarms and supervisories go to the primary number only; all reports go to the secondary number.

*52 STANDARD/EXPANDED REPORT PRIMARY

Alm	Rst	Byp	Trbl	Opn/Cls	Low Batt

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

Note: Expanded overrides 4+2 format.

*53 STANDARD/EXPANDED REPORT SECONDARY

Alm	Rst	Byp	Trbl	Opn/Cls	Low Batt

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

Note: Expanded overrides 4+2 format.

*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** if you do not want a Restore report for a zone type.

*80 ZONE TYPE RESTORES FOR TYPES 9 AND 10

Enter **1** for each zone type for which you want to enable Restore reporting. Enter **0** for each zone type for which you do not want Restore reporting.

*83 FIRST TEST REPORT TIME

In these three positions, enter the day (**00**-**07**) and time (**00**-**23** hours/**00**-**59** min.) that you want the first Test report to be transmitted.

Enter **00** in all the positions if you want the report to be transmitted immediately upon exiting.

Enter **00** in the first (day) position if you want the report to be sent at the next occurrence of the time that you set in the second and third positions.

Note that day 01=Monday. See "Report Code Programming" (System Group 1) in *Section 22: #93 Menu Mode Programming* for information about assigning the Test report code.

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

This option limits the number of messages (Alarms or Troubles) that are sent for a specific channel in an armed period. Enter **00** to report all Alarm or Trouble codes, or set a limit from **01** to **15**.

Set this field to **00** (disabled) for Commercial Fire and UL installations.

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

95	96	99	Duress

(partition-specific)

Enter **1** to enable reporting for each of the three panic types or for duress.

NOTE: You must assign a non-zero report code to zone 992 (duress) to enable duress reporting.

*87 ENTRY WARNING (partition-specific)   [0]

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** if you want no delay on burglary alarm communication. Enter **1** if you want a 16-second delay (there is no delay on 24-hour zone-type alarms).

Set this field to **0** for UL installations.

*89 RESTORE REPORT TIMING   [0] ☐

Enter **0** if you want an instant Restore report as the zone restores. Enter **1** if you want reporting after the bell timeout if the zone is restored. Enter **2** if you want a Restore report when the system is subsequently disarmed.

This field must be set to **2** for Commercial Fire or UL Commercial Burglary installation.

*90 SECONDARY SUBSCRIBER ACCT # | | | | | | | |

(partition-specific)   [15   15   15   15]

If you have entered a secondary phone number in field *34, you must enter the 3- or 4-digit secondary subscriber account number. For each digit in the account number, enter **00-09** (representing 0 through 9) or **11-15** (representing B through F). If the account number has only 3 digits, leave the last two positions empty. The default is 15, 15, 15, 15. You can erase the field by entering *90*. This account number can be the same as the primary account number.

1*17 LOBBY PARTITION   [0] ☐

Enter the number of the common lobby partition (**1-8**). Enter **0** if there is no common lobby partition.

1*18 AFFECTS LOBBY (partition-specific)   [0] ☐

Enter **1** if this partition affects the common lobby. If you enter 1, the lobby will disarm when this partition disarms. Enter **0** if this partition does not affect the common lobby.

1*19 ARMS LOBBY (partition-specific)   [0] ☐

Enter **1** if arming this partition causes the system to attempt to arm the common lobby partition automatically. The system can only arm the lobby if all other affecting partitions are armed. To set this field to 1, you must have set field 1*18 AFFECTS LOBBY to 1. Enter **0** if arming this partition will not cause the system to attempt to arm the common lobby partition.

1*20 EXIT ERROR LOGIC   [0] ☐

Enter **1** to enable Exit Error Logic (entry/exit doors will be bypassed if left open). Enter **0** if you do not want Exit Error Logic.

You must set this field to **0** for UL Commercial Burglary installations.

1*21 EXIT DELAY RESET   [0] ☐

Enter **1** to reset the Exit Delay to 60 seconds after the door is closed. Enter **0** if you don't want to reset the Exit Delay.

You must set this field to **0** for UL Commercial Burglary installations.

1*22 CROSS ZONING PAIR ONE | | | | | | |

Enter the first pair of zones that must both be faulted within a 5-minute period to cause an alarm. Enter **000,000** to disable this feature, if you do not want to define such a pair of zones.

You must set this field to **000,000** for UL Burglary Installations.

1*23 CROSS ZONING PAIR TWO | | | | | |

Enter the second pair of zones that must both be faulted within a 5-minute period to cause an alarm. Enter **000,000** to disable this feature, if you do not want to define a second pair of cross-zones.

You must set this field to **000,000** for UL Burglary Installations.

1*24 CROSS ZONING PAIR THREE | | | | | |

Enter the third pair of zones that must both be faulted within a 5-minute period to cause an alarm. Enter **000,000** to disable this feature, if you do not want a third pair of cross-zones.

You must set this field to **000,000** for UL Burglary Installations.

1*25 CROSS ZONING PAIR FOUR | | | | | |

Enter the fourth pair of zones that must both be faulted within a 5-minute period to cause an alarm. Enter **000,000** to disable this feature, if you do not want a fourth pair of cross-zones.

You must set this field to **000,000** for UL Burglary Installations.

1*28 RF TX LOW BATTERY SOUND   [0] | |

Enter **0** if you want an audible beep and display in the event of an RF transmitter low-battery condition only when the system is in the disarmed state. Enter **1** if you want an audible beep and display when the system is in either an armed or a disarmed state.

You must set this field to **1** for UL installations.

1*29 RF TX LOW BATTERY REPORT ENABLE   [0] | |

Enter **1** if you want a Trouble message for an RF transmitter low-battery condition to be sent to the central station. Enter **0** if you do not want a report on a transmitter low-battery condition. Note that a Trouble message will be sent for a transmitter supervision failure independent of this selection.

You must set this field to **1** for UL installations.

1*30 RF RCVR SUPERVISION CHECK-IN INTERVAL   [06] | |

Enter the check-in monitoring interval. The system will multiply the number you enter by 2 hours to calculate the interval. Enter a number from **02** (4 hours) to **15** (30 hours). Failure of a receiver to receive any RF signal within the time you entered will result in activation of the response type programmed for zone 990 for the first receiver and zone 988 for the second receiver, and their related communication reports. Enter **00** to disable receiver supervision.

For UL installations, the maximum interval is 4 hours (enter **2**).

1*31 RF TRANSMITTER CHECK-IN INTERVAL   [12] | |

Enter the check-in monitoring interval. The system will multiply the number you enter by 2 hours to calculate the interval. Enter a number from **02** (4 hours) to **15** (30 hours). Failure of an individual transmitter to send a supervision signal within the time you entered will result in a trouble response and related communication report. Enter **00** to disable transmitter supervision.

For UL installations, the maximum interval is 4 hours (enter **2**).

1*32 RECEIVER TYPE   [0] | |

Enter **1** if you are using 4281 Series receivers. Enter **2** if you are using 5881 Series receivers. Important: The 4281 Microprocessor must have part number N5334Vx, where x is any number.

1*33 TOUCHTONE W/ROTARY BACKUP [0] ☐

Enter **1** to enable rotary backup dialing if the communicator is not successful in dialing using TouchTone DTMF on the first attempt. Enter **0** if you do not want this option.

1*34 COMM. SPLIT REPORT SELECTION [0] ☐

This field allows you to direct certain reports to either the primary or secondary phone number.

Enter **0**, **1**, or **2**, for the following selections:

0 = split reporting disabled; **1** = Alarm, Alarm Restore and Cancel reports sent to primary telco number, all others to secondary telco number; **2** = Open/Close and Test reports sent to secondary telco number and all other reports to primary; **3** = Fire Alarms and Fire Restores sent to primary telco number, all reports to secondary.   See *51 for split/dual reporting combinations.

1*42 CALL WAITING DEFEAT [0] ☐

Enter **1** if you want the panel to defeat Call Waiting on the first attempt. (DO NOT enable Call Waiting Defeat unless you are using Call Waiting.) Enter **0** if you do not want to defeat Call Waiting.

1*43 PERMANENT KEYPAD DISPLAY BACKLIGHTING (partition-specific) [0] ☐

Enter **1** if you want backlighting for the keypad display to remain on at all times. Enter **0** if you want the display to 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 the selected partition.

1*44 WIRELESS KEYPAD TAMPER DETECT [0] ☐

Enter **1** to enable tamper detection on a wireless keypad. If you enable this feature, any attempt to tamper by means of many trial entries at a wireless keypad will be blocked by the control panel. If the system receives more than 40 key depressions without a valid sequence (such as arm or disarm), the control panel will disable the wireless keypad. The inhibit is removed once the system receives a valid key sequence from a wired keypad. Enter **0** if you do not want tamper detection.

1*45 EXIT DELAY SOUNDING (partition-specific) [0] ☐

Enter **1** if you want the keypads to emit beeps during the exit delay. Enter **0** if you do not want any sound during the exit delay.

1*47 CHIME ON BELL 1 (partition-specific) [0] ☐

Enter **1** if you want chime annunciation that uses the external alarm sounder. Enter **0** if you do not want chime annunciation.

1*48 WIRELESS KEYPAD ASSIGNMENT [0] ☐

Enter the number of the partition (**1**-**8)** in which the RF keypad is used**.** 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 you want audible trouble sounding.

You must set this field to **0** for UL installations.

1*52 SEND CANCEL IF ALARM + OFF (partition-specific) [0] ☐

Enter **1** if you want Cancel reports to be sent when the system is disarmed after an alarm, regardless of how much time has elapsed. Enter **0** if you want Cancel reports to be sent only within the bell timeout period.

1*53 DISABLE DOWNLOAD CALLBACK [0] ☐

Enter **1** to disable the callback requirement for downloading. Enter **0** to require a callback.

You must set this field to **0** for Commercial Fire and UL Commercial Burglary installations.

1*56 50/60 Hz CLOCK SPEED [0] ☐

Enter **1** for 50 Hz Standard, or **0** for 60 Hz Standard.

You must set this field to **0** (the default) for U.S. installations.

1*57 ENABLE 5800 RF BUTTON GLOBAL ARM [0] ☐

Enter **1** if you want the system to arm or disarm in accordance with the button's user's global arming settings. Enter **0** if the button is not to be used to arm the system globally. 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 the user attempts to arm the system, the keypad will beep once after the user presses the button if any faulted zones are present. If this feature is enabled, the user can press the button again within 4 seconds to force the system to bypass those zones and arm the system. Enter **0** if you do not want RF button force bypass.

1*60 ZONE 5 AUDIO ALARM VERIFICATION [0] ☐

Enter **1** if you are using 2-Way Audio (AAV). Enter **0** if you are not using AAV.

You must enter **0** in this field for Commercial Fire and UL installations.

1*70 EVENT LOG TYPES [1,0,0,0,1,0] ☐ ☐ ☐ ☐ ☐ ☐

Alm Chck Byps O/C Systm Test

Enter **1** for each type of event for which you want event logging. Enter **0** for each event for which you do not want event logging.

1*71 12/24 HOUR TIME STAMP FORMAT [0] ☐

Enter **0** if you want a standard 12-hour time stamp format. Enter **1** if you want a 24-hour format.

1*72 EVENT LOG PRINTER ON-LINE [0] ☐

Enter **1** if you want the printer to print events as they occur. Enter **0** if you want the printer to print logs only on request.

1*73 PRINTER BAUD RATE [0] ☐

Enter **0** if the printer is set for 1200 baud. This is the preferred setting. Enter **1** if the printer is set for 300 baud.

1*74 RELAY TIMEOUT XXX MINUTES [000] ☐

Enter the relay timeout, **000-127** in multiples of 2 minutes, that you want for #80 Menu Mode time-driven event relay command numbers "04/09" and #93 Menu Mode Relay Programming output command "56." (Refer to *Section 22: #93 Menu Mode Programming* and "Programming with #80 Scheduling Menu Mode" in *Section 23: Scheduling Options.*)

1*75 RELAY TIMEOUT YYY SECONDS [000] ☐

Enter the relay timeout, **000-127** seconds, that you want for #80 Menu Mode time-driven event relay command numbers "05/10" and #93 Menu Mode Relay Programming

command "57." (Refer to *Section 22: #93 Menu Mode Programming* and "Programming with #80 Scheduling Menu Mode" in *Section 23: Scheduling Options.*)

1*76 ACCESS CONTROL RELAY (partition-specific) [00] [|]

You can program the system to provide user-activated access control. If you enable the Access Control Relay, the assigned relay will pulse for 2 seconds when the user enters his code and presses **0**. Enter the relay number (**00-16**) for the relay that the system will use for access control. Enter **00** if Access Control Relay is not used in this partition.

This function has not been UL Listed for use with the VISTA-100 control. You must set this field to **00** for Commercial Fire and UL installations.

2*00 NUMBER OF PARTITIONS [1] [ ]

Enter the number of partitions (**1-8**) to be used in the system.

2*01 DAYLIGHT SAVINGS TIME START/END MONTH [04,10] [|] [|]

Enter the month when daylight savings time starts and the month when it ends. The standard setting for the U.S. is **04,10**. Enter **00,00** if daylight savings time does not apply to the user's region.

2*02 DAYLIGHT SAVINGS TIME START/END WEEKEND [1,5] [ ] [ ]

Enter the code representing the weekend when daylight savings time starts and when it ends. The codes are: **1** = first; **2** = second; **3** = third; **4** = fourth; **5** = last; **6** = next to last; **7** = third from last. The standard setting for the U.S. is **1,5**.

UL You must set fields 2*05 through 2*08 to **0** for UL installations.

2*05 AUTO-ARM DELAY (partition-specific) [15] [|]

Enter the time between the end of the arming window and the start of the auto-arm warning time in values of **01-14**. The system will multiply your entry times 4 for the actual minutes. Enter **00** if you do not want a delay. Enter **15** if you do not want auto arming.

2*06 AUTO-ARM WARNING PERIOD (partition-specific) [15] [|]

Enter the length of the warning period, up to 15 minutes, in one-minute increments. During the Auto-Arm Warning Period, the keypad emits a sound and shows a display to warn the user to exit the premises before the system is auto-armed. Enter **00** to disable the warning period.

2*07 AUTO-DISARM DELAY (partition-specific) [15] [|]

Enter the time between the end of the disarming window and the start of auto arming in values of **01-14**. The system will multiply your entry times 4 for the actual minutes. Enter **00** if you do not want a delay. Enter **15** if you do not want auto disarming.

2*08 ENABLE FORCE ARM FOR AUTO-ARM (partition-specific) [0] [ ]

Enter **1** if you want the system to bypass any faulted zones automatically when it attempts to auto-arm. Enter **0** if you do not want the system to bypass faulted zones automatically.

2*09 OPEN/CLOSE REPORTS BY EXCEPTION (partition-specific) [0] [ ]

Enter **1** if you want the system to send Open/Close reports **only if** the openings or closings occur **outside** the arm and disarm windows. Open reports will also be

suppressed during the closing window in order to prevent false alarms if the user arms the system, then re-enters the premises (for example, to retrieve a forgotten item). Note that openings and closings are still recorded in the event log. Enter **0** if you do not want exception reporting.

Note: You **must** set this field to **1** if you want the system to send "No Opening" and "No Closing" reports.

2*10 ALLOW DISARMING ONLY DURING ARM/DISARM WINDOWS   [0] ☐
(partition-specific)

Enter **1** if, in the selected partition, disarming of the system will be allowed only during the arming or disarming windows, or when the system is in alarm. Note that this applies **only** to Operator-level users. Installer, Master, and Manager-level users can disarm the system at any time. Enter **0** if disarming can occur at any time in the selected partition. If you set this field to 1, you must set field 2*11 to 1 also.

2*11 ALLOW DISARM OUTSIDE WINDOW IF ALARM OCCURS   [1] ☐

Used this field only if field 2*10 is set to 1 for at least one partition.

Enter **1** to allow the system to be disarmed outside the programmed disarm (opening) window if an alarm has occurred. Enter **0** to allow disarming only during the disarm window, regardless of system status. If field 2*10 is set to 0 for a particular partition, this field (2*11) has no effect for that partition.

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. If it is not, enter **0**.

2*19 USE PARTITION DESCRIPTORS   [1] ☐

Enter **1** if you will program partition descriptors. If you enable this feature, the normal keypad display will include a partition number and 4-digit descriptor. If you enter **0**, the keypad display will not include a partition number.

2*20 ENABLE J2 TRIGGERS BY PARTITION (partition-specific)   [1] ☐

Enter **1** to enable triggers for the displayed partition. Enter **0** if you want no triggers enabled for the displayed partition.

2*21 SUPERVISION PULSES FOR LORRA TRIGGER OUTPUTS   [000] ☐ | ☐ | ☐
                                                                                       F   B   S

This field is used for a supervised connection to 7920SE. Enter **1** to enable pulses for each type of LORRA trigger (burglary, fire, silent panic). This option causes the control to send periodic short pulses on the J2 radio triggers. The 7920SE uses these pulses to determine that its connection to the control is still intact. Enter **0** if you do not want these pulses.

Set this field to **1** for Commercial Fire and UL installations.

2*22 DISPLAY FIRE ALARMS OF OTHER PARTITIONS (partition-specific)   [0] ☐

Enter **1** if you want fire alarms that occur on other partitions to be displayed at this partition's keypad(s). Enter **0** if you do not want to display these alarms on this partition's keypads.

2*23 DISPLAY BURG & PANIC ALARMS OF OTHER PARTITIONS   [0] ☐

Enter **1** if you want burglary and panic alarms that occur on other partitions to be displayed at this partition's keypad(s). Enter **0** if you do not want these alarms displayed on this partition's keypad(s).

2*24 DISPLAY TROUBLES OF OTHER PARTITIONS [0] ☐

Enter **1** if you want troubles that occur on other partitions to be displayed at this partition's keypad(s). Enter **0** if you do not want such a display.

3*00 DISPLAY TRBL INSTEAD OF CHECK [0] ☐

Enter **1** if you want the keypad to display the letters "TRBL" instead of "CHECK" when a zone or system trouble occurs. Enter **0** if you want the keypad to display "CHECK."

3*13 SUPV. N.O./N.C. SELECTION [0] ☐

Enter **0** if you want a supervisory response on a shorted zone and a trouble response on an open zone. Enter **1** if you want a supervisory response on both a shorted and an open zone.

3*14 WATERFLOW SILENCE OPTION [0] ☐

Enter **0** to give the user the ability to silence Waterflow Supervisory zones by entering the Code + OFF.

Enter **1** if you want Waterflow Supervisory zones to be silenced automatically when waterflow ceases. You may only set this feature to 1 by permission of the local authority.

3*15 ALARM BELL SOUND [0,0] ☐ ☐
Bell 1 Bell 2

Enter **0** for pulsing output, **1** for steady output on Bell Outputs 1 and 2. If you select pulsing output, field *08 applies.

3*16 DELAY FOR ZONE TYPES 17 & 18 [00] ☐|☐

Enter the duration in seconds (01-15 times 2 seconds) of a delay for Waterflow and Fire Supervisory zones. This can help prevent alarms due to minor fluctuations in waterflow. Enter **00** if you do not want a delay.

3*17 ALTERNATE FUNCTION (TAMPER) FOR ZONE 6 [0] ☐

Enter **1** to enable zone 6 as a tamper zone.

3*18 EXTENDED DELAY FOR TYPES 17 & 18 [0] ☐

This option allows the delay time programmed in field 3*16 for Waterflow & Fire Supervisory zones to be increased 4 times. Enter **1** to multiply the delay by 4. Enter **0** to use the delay period programmed in field 3*16.

UL The total maximum allowable time delay (device and panel) for a Waterflow alarm is 90 seconds. The total maximum allowable time delay (device and panel) for a Supervisory signal is 200 seconds.

3*19 ENABLE J2 HEADER PRINTER PORT [0] ☐

Enter **1** to enable pins 5 and 9 as printer RXD and DTR. Enter **0** if you want these pins to function as selected in 3*20.

3*20 TRIGGER OUTPUTS SELECTION [0] ☐

Enter **0** for Long Range Radio outputs and Remote Keypad Sounder. Enter **1** for limited LORRA outputs and Keyswitch LEDs. Enter **2** for LORRA fire output only and 5140LED connection.

3*21 MAX # OF DIALER RETRIES [8] ☐

Enter a number from **1** to **8** to set the maximum number of retries to each telephone number. You must enter **3**, **4**, or **5** for NFPA72-compliant systems if you program a secondary number.

3*30 DIALER SELECTION [0,0] ☐ ☐

Main   Backup

Enter **1** to enable each dialer that exists in the system.

3*31 BACKUP DIALER TOUCHTONE/ROTARY [0] ☐

Enter the dialing method for the system's backup dialer. Enter **1** for TouchTone; enter **0** for rotary.

3*50 ZONE TYPE RESTORE ENABLES FOR ZONE TYPES 16-18 ☐ ☐ ☐

16   17   18

Enter **1** for each zone type that you want to send a Restore message to the central station. For Commercial Fire and UL Commercial Burglary installations, you must enter **1**.

3*55 RESET ON SECOND OFF FOR BELL 1 [0] ☐

Enter **0** if you want the first OFF sequence ([Security Code] + OFF) after a fire alarm to de-activate sounders and/or strobe lights connected to Bell 1 output. Enter **1** if you want the second OFF sequence ([Security Code] + OFF) after a fire alarm to de-activate sounders and/or strobe lights connected to Bell 1 output.

3*56 RESET ON SECOND OFF FOR BELL 2 [0] ☐

Enter **0** if you want the first OFF sequence ([Security Code] + OFF) after a fire alarm to de-activate sounders and/or strobe lights connected to Bell 2 output. Enter **1** if you want the second OFF sequence ([Security Code] + OFF) after a fire alarm to de-activate sounders and/or strobe lights connected to Bell 2 output.

3*57 BELL 2 & AUX RELAY CONFIRMATION OF ARMING DING [0,0] ☐ ☐

Bell 2 Aux.

Enter **1** to enable the one-half-second external alarm sounding ("ding") that occurs at the end of exit delay (or after kissoff from the central station, if sending closing reports). Enter **0** if you do not want to enable this sounding.

You must enter **1** for UL installations.

3*58 BELL 2 & AUX. RELAY AC POWER LOSS ALARM [0,0] ☐ ☐

Bell 2 Aux.

Enter **1** to activate the external alarm sounders connected to Bell Output 2 and the aux. relay after AC power has been out for 4 hours. Enter **0** if you do not want to activate the external alarm sounders.

3*59 ENABLE BELL 2 & AUX RELAY CHIME ANNUNCIATION [0,0] ☐ ☐

Bell 2 Aux.

Enter **1** to enable the Chime function on Bell Output 2 and the aux. relay. Enter **0** if you do not want to enable this function.

3*60 BELL 2 & AUX RELAY TIMEOUT   [00,00] ⎢ | ⎥ ⎢ | ⎥

                                                                        Bell 2   Aux. Rly.

Use this field to define the length of time Bell Output 2 and the aux. relay will sound for all audible alarms. The system will multiply the number you enter by 2 minutes to calculate the actual duration of the timeout.

You must set the timeout to a minimum of 16 minutes (enter **8**) for UL Burglary installations.

3*61 AUX RELAY FUNCTION   [1] ⎢ ⎥

Select the condition that will trigger the auxiliary relay. The options are: **0** = trouble/supervisory; **1** = alarm, silenced by [Code] + OFF; **2** = smoke detector reset; **3** = battery save; **4** = alarm, silenced by [Code] + #67.

3*82 ENABLE BURG FEATURES ON PARTITION 1   [1] ⎢ ⎥

Enter **1** to enable burglary features on Partition 1. Enter **0** to disable Arm-AWAY, Arm-STAY, Arm-INSTANT, Arm-MAXIMUM, Test, and Chime functions (burglary features are automatically enabled on other partitions).

3*85 ENABLE FIRE & SYSTEM ZONE BYPASS   [1] ⎢ ⎥

Enter **0** to prevent bypass of fire and system supervisory zones. Enter **1** to allow only the installer to bypass these zones. Enter **2** to allow the Installer or Master code to bypass these zones. This field applies only to fire zone types 9, 16, 17, and 18, and system zones 970-977. This field applies to Partition 1 only.

#93 Menu Mode Programming

In This Section

♦ *#93 Main Menu Options*

♦ *Zone Programming*

♦ *Storing Serial Numbers*

♦ *Report Code Programming*

♦ *Programming Alpha Descriptors*

♦ *Device Programming*

♦ *Relay Programming*

♦ *Programming Relay Output Devices*

♦ *Zone List Programming*

♦ *Relay Voice Descriptors*

♦ *Custom Word Substitutes for VIP Module Annunciation*

♦ *RF Serial Number Clear Mode*

#93 Main Menu Options

Before you begin programming Main Menu Options, be sure that you have programmed field 2*00 Number of Partitions; and field 1*32 RF Receiver Type.

UL   For Commercial Fire and UL installations, verify that wireless and Audio Alarm Verification features are disabled.

After you have programmed all system-related programming fields, press #93 while you are still in Programming Mode. You will see the first menu-driven programming option, which is Zone Programming. Press **0** (N0) or **1** (YES) in response to the displayed menu selection. Pressing 0 will display the next choice in sequence.

```
ZONE PROG?
0=No      1=Yes
```

In Zone Programming, you can program these items:
- Zone number
- Zone response type
- Partition number for zone
- Dialer report code for zone
- Bell/aux. relay assignment for zone
- Input device type for zone (RF, polling loop, etc.)
- Serial numbers of 5800 Series transmitters and serial polling loop devices (all other zone characteristics must be

pre-programmed).

SEQUENTIAL LEARN?
0=No   1=Yes

On the Sequential Learn Menu, you can perform these functions:
- Program the input device type for the zone (RF, polling loop, etc.)
- Program serial numbers of 5800 Series transmitters and serial polling loop devices into the system (all other zone characteristics must be pre-programmed).

REPORT CODE PROG?
0=No   1=Yes

On the Report Code Programming Menu, you can program:
- Alarm report codes for zones
- Restore and supervisory codes
- All other system report codes

ALPHA PROG?
0=No   1=Yes

On the Alpha Programming Menu, you can enter:
- Zone descriptors
- Installer's message
- Custom words
- Partition descriptors
- Relay descriptors

DEVICE PROG?
0=No   1=Yes

On the Device Programming Menu, you can define the following device characteristics for addressable devices, including keypads, RF receivers (4281/5881), 4204 Output Relay Modules, and 4285/4286 VIP Modules:
- Device address
- Device type
- Keypad options (including partition assignment)
- RF House ID

RELAY PROG?
0=No   1=Yes

On the Relay Programming Menu, you can define output relay functions.

RLY VOICE DESCR?
0=No   1=Yes

On the Relay Voice Descriptor Menu, you can enter voice descriptors for relays to be used with the 4285/4286 VIP Module.

CUSTOM INDEX?
0=No   1=Yes

On the Custom Index Menu, you can create custom word substitutes for VIP Module annunciation.

CLEAR RF SERIAL#?
1=Yes   0=No

On the Custom RF Serial Number Menu, you can clear an undesired transmitter if one has been enrolled during sequential enrolling.

Refer to "Zone Programming" for instructions on how to program zone characteristics, "Device Programming" for instructions on how to program addressable devices, and "Programming Alpha Descriptors" for programming alpha descriptors, all later in this section.

The following is a list of commands you can use while in the Menu Mode.

#93 Menu Mode Key Commands

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

Zone Programming

Before you begin Zone Programming, you must enter Programming Mode by pressing **[Installer Code] + 8 0 0 0**. Then program field 2*00 Number of Partitions; and field 1*32 RF Receiver Type.

Before you program wireless zones, you must enable the RF receiver in Device Programming Mode (see "Device Programming" in this section).

When you are ready to begin Zone Programming, press #93. You will see the Zone Programming Menu.

```
ZONE PROG?
1=Yes  0=No
```

Press **1** to enter Zone Programming Mode. 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 RF or if a program tool has already been programmed, the system will advance to the "ENTER ZN NO." prompt.

```
PROGRAM TOOL?
0 = NO, 1 = YES   0
```

If you are using a program tool, enter **1**. If you are not using a tool, enter **0**. If you enter 0, the system will advance to the "ENTER ZN NO." prompt.

```
010 INPUT S/N: L
    Axxx-xxxx
```

If you enter 1, the system will prompt for the unit's serial number. Enter the program tool's serial number using one of the following methods:
- Enter the 7-digit serial number for the transmitter; or
- Press any button on the transmitter. The keypad will beep three times and display the serial number of the tool.

```
010  PROG AS BR: 3
  A123-4567       3
```

In this example, the serial number is A123-4567. Once the serial number is enrolled, you can press the upper left button of the program tool to ready the system for enrolling a device into the system.

The serial number for the program tool will remain in the system only until you exit the Zone Programming Mode. (Entering ✱97 will not delete the tool's serial number.)

Press ✱ to continue or press the [#] key to return to the "PROGRAM TOOL?" prompt.

ENTER ZN NO. 000 = QUIT 010 *Zone 010 entered* ↑	Enter the 3-digit zone number that you want to program. As an example, zone 010 is shown here. Press ✳ to continue.

010 ZT P RC B INL 00 − −− − −−: −	You will see a display showing a summary of that zone's programming.

ZT = Zone Type; P = Partition; RC = Report Code; B = Bell/Aux. Relay assignment for zone; IN = the input type of device; 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; e.g., 5801, 5803, 5816, 5817).

If the zone is not programmed, the display will appear as shown here. If you are checking a zone's programming, and it is programmed satisfactorily, press [#] to return to the "ENTER ZN NO" prompt and enter another zone number. Press ✳ to continue.

↓ Zone Number

010 ZONE RESPONSE Perimeter 03 *Zone Type 03 entry shown*	Each zone must be assigned a zone type, which defines the way the system responds to faults in that zone. Refer to *Section 19: Zone Type Definitions* for detailed definitions of each zone type. Enter the zone type desired (or change it, if necessary). Available zone types are listed below.

00 = Unused Zones	10 = Interior Delay, Burglary
01 = Entry/Exit #1, Burglary	16 = Fire With Verification
02 = Entry/Exit #2, Burglary	17 = Fire Waterflow
03 = Perimeter, Burglary	18 = Fire Supervisory
04 = Interior Follower, Burglary	19 = 24-Hour Trouble
05 = Trouble Day/Alarm Night	20 = Arm-Stay†
06 = 24-Hr Silent Alarm	21 = Arm-Away†
07 = 24-Hr Audible Alarm	22 = Disarm†
08 = 24-Hr Auxiliary	23 = No Alarm Response
09 = Fire Without Verification	(e.g., relay activation)

† These are special zone types used with 5800 Series wireless push-button units that result in arming the system in the Stay or Away mode, or disarming the system, depending on the selection you make.

Press ✳ to continue.

010 PARTITION 2	Enter the partition number (**1–8**) to which you are assigning this zone. Press ✳ to continue.

010 REPORT CODE 1st 03 2nd 12 3C	Enter the report code. The report code is a 2-digit hexadecimal number. For each digit in this number, you must enter the decimal equivalent. In this example, where the report code is "3C," you would enter **03** (the decimal equivalent of hexadecimal 3) as the first digit, and **12** (the decimal equivalent of hexadecimal C) as the second digit.

(Refer to *Section 24: System Communication* for more information about report codes and report code formats.)

Press ✳ to continue.

010 BELL/RLY SEL
                    0

Assign each zone to activate either one or both bell outputs and/or the system's auxiliary relay. Enter one of the following assignments:

0=none; 1=Bell 1; 2=Bell 2; 3=Bells 1 and 2; 4=Aux Relay; 5=Bell 1 and Aux. Relay; 6=Bell 2 and Aux. Relay; 7=Bells 1 and 2 and Aux. Relay.

Press ✳ to continue.

010 INPUT TYPE
RF Xmitter   3

Note that input types 4 and 5 are valid for certain 5800 series transmitters only (e.g., 5801, 5802, 5802CP and 5803). When you are 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:
  0 = not used
  1 = hardwired
  3 = supervised RF transmitter (RF type)
  4 = unsupervised RF transmitter (UR type)
  5 = RF button-type transmitter (BR type)
  6 = serial number polling loop device (SL type)
  7 = DIP switch-type polling loop device
  8 = 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 you are programming hardwired, DIP switch polling loop, or 5700 Series devices, the summary display appears after you complete this entry.

Press ✳ to continue.

010 LOOP #
                    1

The cursor should now be flashing on the loop number. The default loop number is **1**. To accept the default, 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 22-1*.) **You must enter the loop number here, whether you are using Zone Programming or Sequential Mode to enroll serial numbers.** If you have entered the wrong serial number and you want to delete it, 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.
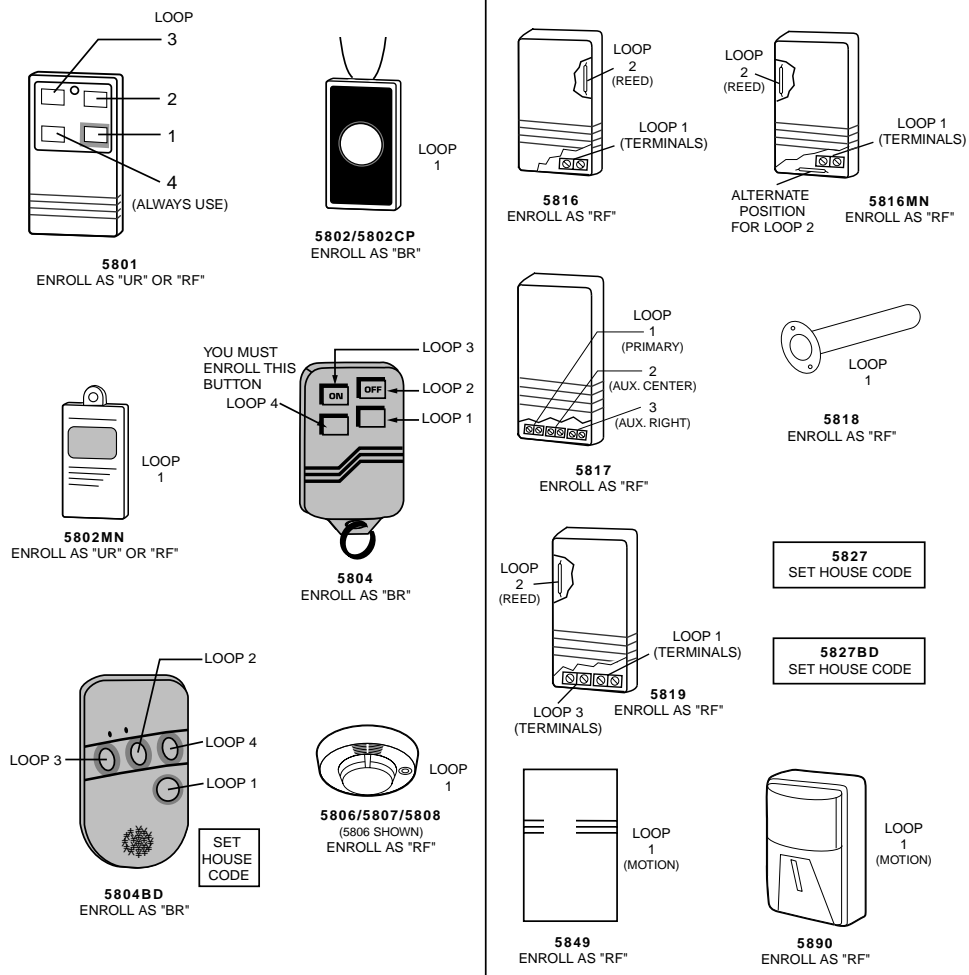
Figure 22-1: RF Transmitter Loop Designations

010 LEARN S/N? 1 = YES, 0 = NO 1	If the device's serial number has not been previously enrolled, you can enter the enrollment mode now by either pressing **1** (YES) **or** by pressing the upper left button of the program tool. **If you are using the program tool, move to the physical location of the device to be enrolled before pressing the button.** You will hear a single short beep to verify that you pressed the button. 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 you enter 0, the system will advance to the summary screen prompt.)

010 INPUT S/N
   Axxx-xxxx
	This prompt is displayed if you entered **1** (YES) in response to the "Learn S/N?" prompt. You can enroll the serial number using one of two methods:
	• Enter the 7-digit serial number printed on the device using an alpha keypad;
	  or
	• Activate the device by faulting **or** restoring the input you want to use for that zone (e.g., press a button, or open or close a door).

> ```
> 010  INPUT S/N
>      A022-4064
> ```

The system will enroll the serial number of the first device heard and will display the number.

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 you can confirm the operation of the actual programmed input. Activate the loop input or button that corresponds to this zone. **We recommend that you confirm the programming of every device in a zone before proceeding to the next zone.**

> ```
> 010  CONFIRM  RF:1
>      A022-4064        1
> ```

When the system detects activity on the appropriate input, it will beep three times and display a confirmation message.

At any time during this step, you may press the ⁑ key on the keypad or the upper left button of the program tool if you are satisfied with the serial and loop number combination that has been enrolled, regardless of whether it has been confirmed.

If the incorrect device has been enrolled, press [#] on the keypad or the upper right button on the program tool to delete the serial number and return to the "LEARN S/N" prompt. The keypad will emit a single long beep to verify that you pressed the upper right button. Press **1** (Yes) or the upper left button of the program tool (a single short beep will verify that the system is ready for enrolling) and you can re-activate the proper device loop input.

> ```
> 010  ZT  P  RC  B  INL
>   s  03  2  3C  0  RF1
> ```

You will see the summary screen for the zone. Note that an "s" indicates that a serial number has been enrolled. Press ⁑ to accept the zone information.

If you want to delete the serial number, press [#]. The system will display the "INPUT TYPE" prompt. Press ⁑ to change the input type, loop number, or 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 to test zone programming, 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.

Enrolling Serial Numbers in Sequential Mode

Usually, you enroll serial numbers in the system during zone programming. If you have not done this (for example, if all other programming was done via downloading), use the Sequential Learn option in #93 Menu Mode to enroll the serial numbers.

Use Sequential Mode only after all other zone information has been programmed, including transmitter loop numbers.

To enroll serial numbers in Sequential Mode, take the following steps:

1. Enter Data Field Programming Mode by entering **[Installer Code]** + **8 0 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 store or delete a device's serial number, enter **1** (yes). Enter **0** to skip to the next main menu option.

If you have set up the system to use 5800 Series RF devices, and a program tool has not been programmed, the keypad will display the following "PROGRAM TOOL" prompt. If the system is not set up to use 5800 Series RF devices, 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 you are using a program tool, enter **1**. If you are not using a tool, enter **0**. If you enter 0, the system will advance to the "TECHNOLOGY TYPE" prompt.

010 INPUT S/N: L
    Axxx-xxxx
	If you enter **1**, the system will prompt for the unit's serial number. Enter the program tool's serial number using one of the following methods:
	• Enter the 7-digit serial number for the transmitter you are using as the program tool;
	  or
	• Press any button on the tool. The keypad should beep three times and display the serial number of the tool.

010 PROG AS BR: 3 A123-4567 3	In this example, the serial number is A123-4567. Once the serial number is enrolled, press the upper left button on the program tool to ready the system for enrolling a device. **The serial number for the program tool will remain in the system only until you exit the Programming Mode. (Entering ✶97 will not delete the tool's serial number.)** Press ✳ to continue or press [#] to return 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. (000 = QUIT) 010 Zone Number Entered ↑	Enter the first zone number to be enrolled (in this example, zone 010). Press ✳ to continue. The system will, starting with this zone number, search for the first device that had *all* of the following attributes pre-programmed in Zone Programming: • **An input type of RF, UR, BR, or SL (if serial polling loop devices enabled) programmed** • **A loop number programmed** • **No serial number programmed**

If the first zone number you enter does *not* have all of the above attributes, the system will search its database for the first zone that does, and will display its number on the next screen.

```
010  INPUT S/N
   Axxx xxxx
```

This prompt is displayed when the system has found the next zone that 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:

- Enter the 7-digit serial number printed on the device;
   or
- Activate the device by faulting or restoring the input you want to use for that zone (e.g., press a button, or open or close a door).

If you do *not* want to enroll the zone that is displayed, press [#] on the keypad or the upper right button on the program tool. (A long beep will verify the entry.) The following prompt will appear:

```
010 LEARN S/N?
0 = NO, 1 = YES    0
```

To enroll now, enter **1** (YES). If you enter **0** (NO), the following prompt will appear:

```
ENTER ZN NUM.
(000 = QUIT)      010
```
Zone Number Entered ↑

Enter the next zone number to be enrolled (in this example, zone 010). The system will search for that zone and will display the "ENTER ZONE NO." prompt. If you want to exit the enrollment mode completely, enter **000** and press ⌘ .

```
010  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 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 in each zone before proceeding to the next zone.**

```
010 CONFIRMED  SL:1
   A022-4064
```

When the system detects activity on the appropriate input, it will beep three times and display the confirmation message. Press ⌘ or the upper left button of the program tool when you are ready to enroll the next device's serial number.

At any time during this step, you may press ✳ on the keypad or the upper left button of the program tool if you are satisfied with the serial and loop number combination that you have enrolled, regardless of whether or not the enrolled input has been "confirmed." This will ready the system to enroll the next device's serial number.

If the incorrect device has been enrolled, press [#] on the keypad or the upper right button of the program tool to delete the serial number and return to the "LEARN S/N" prompt. The keypad will emit a single long beep to verify that you pressed the upper right button. Then, press **1** (Yes) or press the upper left 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.

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 enrolling all zones, test each using the system's Test Mode.

Do not use the Transmitter ID Sniffer Mode for zone testing, 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.

Report Code Programming

You can enter all report codes using #93 Menu Mode Programming, either through Report Code Programming or through Zone Programming Mode, while entering other zone information. In the VISTA-100, reports are divided into six categories. These categories represent the main menu options found in the Report Code Programming Mode. Reports and the categories in which they are found are detailed in the following tables.

ALARM CODES	RESTR, SUPV. CODES (for groups of 16 zones)	SYSTEM GROUP #1
Zone Alarm Reports	Alarm Restore Trouble Trouble Restore Bypass Bypass Restore	Closing (Arm Away) Opening (Disarm) System Low Battery Low Battery Restore AC Loss AC Restore Periodic Test Power Cancel Program Tamper
SYSTEM GROUP #2	**SYSTEM GROUP #3**	**SYSTEM GROUP #4**
Arm Stay Time Set, Log Reset Log 50%, 90% Full Event Log Overflow Exit Error by Zone Exit Error by User Recent Close	Early Open Early Close Late Open Late Close Failed to Open Failed to Close Auto-Arm Failed Schedule Change	Fire Walk Test Start Fire Walk Test End Off-Normal

The following programming sequence assumes that you will be entering all reports for the system at one time. In actuality, you may skip from one main menu option to another by pressing **0** (NO) at each main menu option. Main menu options are in bold text.

To enter report codes, take the following steps:

Enter Program Mode by entering **[Installer Code] + 8 0 0 0**. Press #93. Enter **0** (No) at the main menu options until the Report Code Programming option is displayed.

REPORT CODE PROG
1 = YES   0 = NO   0

Press **1** (YES) to enter Report Code Programming Mode.

Zone Alarm Reports

ALARM, ID DIGIT?
1 = YES   0 = NO   0

Press **1** (YES) to enter Alarm Report Codes for zones. Press **0** (NO) to skip to the next main menu option.

ENTER ZONE NO.
000 = QUIT   001

Enter the zone number for which you are entering the report code. Press ✳ to continue.

001 REPORT CODE
1st 00 2nd 00   00

Enter the first digit of the alarm report code (a double-digit entry with a leading zero) and press ✳ . Enter the 2nd digit of the alarm report code. Press ✳ to continue.

ENTER ZONE NO.
000 = QUIT   001

Enter the next zone number for which you are entering the report code. When you have programmed all zone alarm codes, enter **000** to Quit. Press ✳ to continue.

QUIT REPORT MENU
1 = YES   0 = NO   0

When you have completely finished entering report codes, press **1** (YES) to quit Report Code Programming Mode.   If you want to enter other system report codes, enter **0** (NO) and press ✳ to continue.

Restore/Supervisory Codes

RESTR, SUPV. CODE
1 = YES   0 = NO   0

Press **1** (YES) to enter Restore and Supervisory codes for zones. Press **0** (NO) to skip this option and go to the next one.

ENTER ZN FOR GRP
000 = QUIT   001

Enter one zone for each group of 16 zones (001-016, 017-032, etc.).

ALARM RESTORE
GRP   001-016   00

Enter the first digit of the Alarm Restore report code for this group of zones (a double-digit entry). The second digit will be the ID (second) digit of the alarm report code for each zone (if programmed). Press ✳ to continue.

TROUBLE
GRP   001-016   00

Enter the first digit of the Trouble report code for this group of zones (a double-digit entry). The second digit will be the ID (second) digit of the Alarm report code for each zone (if programmed). Press ✳ to continue.

TROUBLE RESTORE
GRP   001-016   00

Enter the first digit of the Trouble Restore code (a single-digit entry with a leading zero) and press ✳ . The second digit will be the ID (second) digit of the Alarm report code for each zone (if programmed). Press ✳ to continue.

BYPASS
GRP   001-016   00

Enter the first digit of the Bypass report code (a double-digit entry) and press ✳ . The second digit will be the ID (second) digit of the alarm report code for each zone (if programmed). Press ✳ to continue.

BYPASS RESTORE
GRP   001-016   00

Enter the first digit of the Bypass Restore report code (a

double-digit entry) and press ✳ . The second digit will be the ID (second) digit of the Alarm report code for each zone (if programmed). Press ✳ to continue.

```
ENTER ZN FOR GRP
000 = QUIT      017
```

Enter one zone for each group of 16 zones. When you are finished entering Restore and Supervisory codes for all zone groups, enter **000** and press ✳ to continue.

```
QUIT REPORT MENU
1 = YES  0 = NO    0
```

If you have completely finished entering report codes, press **1** (YES) to quit Report Code Programming Mode. If you wish to enter other system report codes, enter **0** (NO) and press ✳ to continue.

System Group 1 Codes

```
SYSTEM GROUP #1?
1 = YES    0 = NO   0
```

To enter System Group #1 codes, press **1** (YES).

```
CLOSE
1st 00    2nd 00
```

Enter the first digit of the Closing (Arm-AWAY) report. Press ✳ . Enter the second digit of the report. If the user number is desired as the second digit, enter **01** (not necessary for Contact ID or High Speed formats). Press ✳ to continue.

Enter the rest of the codes in the same manner. Other codes in System Group #1 are:

Opening (Disarm)	AC Loss	Power
System Low Battery	AC Restore	Cancel
Low Battery Restore	Periodic Test	Program Tamper

Once you have entered these report codes, the system will prompt:

```
QUIT REPORT MENU
1 = YES  0 = NO    0
```

If you have completely finished entering report codes, press **1** (YES) to quit Report Code Programming Mode. If you want to enter other system report codes, enter **0** (NO) and press ✳ to continue.

System Group 2 Codes

```
SYSTEM GROUP #2?
1 = YES    0 = NO   0
```

To enter System Group #2 codes, press **1** (YES).

```
STAY
1st 00    2nd 00
```

Enter the first digit of the Arm-Stay report. Press ✳ . Enter the second digit of the report. If the user number is desired as the second digit, enter **01** (not necessary for Contact ID or High Speed formats). Press ✳ to continue.

Enter the rest of the codes in the same manner. Other codes in System Group #2 are:

Time Set, Log Reset	Exit Error by Zone
Log 50%, 90% Full	Exit Error by User
Event Log Overflow	Recent Close

Once you have entered these report codes, the system will prompt:

```
QUIT REPORT MENU
1 = YES  0 = NO    0
```

If you have completely finished entering report codes, press **1** (YES) to quit Report Code Programming Mode. If you wish to

enter other system report codes, enter **0** (NO) and press ✳ to continue.

System Group 3 Codes

SYSTEM GROUP #3?
1 = YES   0 = NO   0

To enter System Group #3 codes, press **1** (YES).

EARLY OPEN
1st 00   2nd 00

Enter the first digit of the Early Opening report code. Press ✳ . Enter the second digit of the report code. If you want the user number to be the second digit, enter **01** (not necessary for Contact ID or High Speed formats). Press ✳ to continue.

Enter the rest of the codes in the same manner. Other codes in System Group #3 are:

Early Close	Failed to Close
Late Open	Auto-Arm Failed
Late Close	Schedule Change
Failed to Open	

Once you have entered these report codes, the system will prompt:

QUIT REPORT MENU
1 = YES 0 = NO   0

If you have completely finished entering report codes, press **1** (YES) to quit Report Code Programming Mode. If you want to enter other system report codes, enter **0** (NO) and press ✳ to continue.

System Group 4 Codes

SYSTEM GROUP #4?
1 = YES   0 = NO   0

To enter System Group #4 codes, press **1** (YES).

WALK TEST START
1st 00   2nd 00

Enter the first digit of the Fire Test Start report code. Press ✳ . Enter the second digit of the report code. Press ✳ to continue.

Enter the rest of the codes in the same manner. Other codes in System Group #4 are:

Walk Test End
Off-Normal

Once you have entered these report codes, the system will prompt:

QUIT REPORT MENU
1 = YES 0 = NO   0

If you have completely finished entering report codes, press **1** (YES) to quit Report Code Programming Mode.

QUIT MENU MODE?
1 = YES 0 = NO   0

Enter **1** to return to normal Programming Mode. Enter **0** to stay in menu mode.

Programming Alpha Descriptors

General Information

- You can program a user-friendly English language description or location for all protection zones, relays, keypad panics, polling loop shorts, 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.

    NOTE: Because the top line of the display contains the 3-digit zone number, the first word of the descriptor is limited to 6 characters.

- You can add up to 20 installer-defined words 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.

- You can program a custom installer's message (such as "THE PETERSONS") for each partition. The message is displayed when the system is "Ready."

To program alpha descriptors, Follow this procedure:

1. 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 Mode.

    Five sub-menu selections will be displayed one at a time. Press **1** to select the sub-menu you want to program. Press **0** to display the next sub-menu available. The alpha menu selections are:

    | ZONE DESCRIP? | Enter zone descriptors in the Zone Descriptor sub-menu. |

    | DEFAULT SCREEN? | Create a custom message (displayed when the system is ready) in the Default Screen sub-menu. |

    | CUSTOM WORD? | Create custom words for use in descriptors in the Custom Word sub-menu. |

    | PART DESCRIP? | Create 4-character partition names in the Partition Descriptor sub-menu. |

    | EXIT EDIT MODE? | Press 1 to return to #93 Menu Mode in the Exit Edit Mode sub-menu. |

    Refer to the sections that follow for procedures for adding alpha descriptors.

Zone Descriptors

To define zone descriptors, take the following steps:

1. Select the "ZONE DESCRIPTOR" sub-menu.

    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 an asterisk followed by the zone number to which you want to assign a descriptor.

    For example, key *001 to begin entering the description for zone 1. The following will be displayed: * ZN 001 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.

Find the descriptor words you want to use in the fixed-word vocabulary list later in this section. In this example, the description for zone 1 is "Back Door." To enter the descriptor, use one of the following two methods:

- Press [#] followed by the 3-digit number representing the first word you have chosen from the dictionary. In this example, the number 013 represents the word "Back." Press **6** to accept the word and continue to the next word. In the example, the number 057 represents the word "Door," so you would enter 057.

      or

- Press **3** to advance through the displayed alphabet until you locate the first letter of the first word you want for your descriptor; in the example, you would stop at "B." (If you accidentally pass the letter, you can press **1** to go backward.) Press **6** to display the first available word beginning with "B." Then press **3** repeatedly to advance through the list of available words beginning with "B" until you find the word you want to use; in this example, "Back." Press **6** to accept the word. The system will return to the alphabet list. Repeat the procedure to choose the second word of the descriptor.

To add an "s" or " 's," if you need to, press the [2] key. 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. Store the descriptor.

    When all words have been entered, press **8** to store the description in memory.

5. Exit Zone Description Mode by entering **000**.

    - To review the zone descriptors, key [#] plus the zone number (e.g., #001).
    - To edit the zone descriptors, key ⊛ plus the zone number (e.g., *001).

Custom Words

You can add up to 20 installer-defined words or phrases to the built-in vocabulary. Each word or phrase must consist of 10 characters or less. To add a custom word or phrase to the vocabulary, take the following steps:

1. Select the "CUSTOM WORD" sub-menu.

The keys perform the following functions:
    [3]   Advances through the alphabet in ascending order.
    [1]   Advances through the alphabet in descending order.
    [6]   Selects the 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 or phrase in the system's memory.
    [*]Returns to Description Entry Mode.

2. Enter the number of the custom word you want to create.

    For example, if this is the first word (or word string) you are creating, enter 01; when creating the second word, enter 02, and so on. The cursor will appear at the beginning of the second line.

3. Type the word using one of the two following methods:

    a.   Press [#], followed by the 2-digit code that represents the first letter you would like to display (e.g., **65** for "A"), according to the ASCII chart later in this section.

        When the desired character appears, press **6** to select it. The cursor will 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 until you have completed the character string.

    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?" prompt. The custom word (or string of words) is 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 appears at the end of the group of words that begin with the same letter.

6. Repeat steps 2 through 5 to create up to 19 additional custom words (or word strings).

7. Exit Custom Word Mode by entering **00** at the "CUSTOM WORD" prompt.

Partition Descriptors

1.   Select the "PART DESCRIPT." sub-menu.

The system will ask for the partition number. Enter the number as a single-key entry (1-8).

2. Follow the same procedure as for CUSTOM WORDS, except that partition descriptors are limited to 4 characters (for example, "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 positions on each of the two lines.

To create a custom display message, take the following steps:

1. Select the "DEFAULT SCREEN" sub-menu. The keypad will prompt you for the partition number for this message. Enter the partition number. Press ✳ to accept the entry.

    The following display will appear:

> ****DISARMED****
> READY TO ARM

A cursor will be present at the extreme left of the first line (over the first asterisk). Press **6** to move the cursor to the right, or **4** to move the cursor to the left. You can press **7** to insert spaces or erase existing characters.

2. Create the message.

   For example, to replace "READY TO ARM" with the message "SERVICE 555-0177," proceed as follows:

   Press **6** to move the cursor to the right, and continue until the cursor is positioned over the first position on the second line.

   Press **3** to advance through the alphabet to the first desired character (in this case, "S"). Use the **1** key to go backward, when necessary. When you reach the character you want, press **6**.

   The cursor will then move to the next position, ready for entry of the next character (in this example, "E").

   Proceed in this manner until you have entered all characters in the message.

3. Save the message.

   Store the new display message in memory by pressing **8**.

4. The system will ask for the next partition number.

   Enter **0** to quit or **1-8** to enter a new partition number.

ALPHA DESCRIPTOR VOCABULARY

Use this vocabulary list to enter alpha descriptors. To select a word, press [#] followed by the word's 3-digit number.
NOTE: This vocabulary is not to be used for relay voice descriptors. See "Relay Voice Descriptors" in this section when programming relay voice descriptors.

000	*(Word Space)*	• 054	**DEN**	107	HOUSE	• 157	**PHONE**
• 001	**AIR**	055	DESK			158	PHOTO
• 002	**ALARM**	• 056	**DETECTOR**	108	INFRARED	159	POINT
003	ALCOVE	057	DIALER 1	109	**INSIDE**	160	POLICE
004	ALLEY	058	DIALER 2	110	INTERIOR	161	POOL
005	AMBUSH	• 059	**DINING**	111	INTRUSION	• 162	**POWER**
006	ANTENNA	060	DISCRIMINATOR				
• 007	**AREA**	061	DISPLAY	112	JEWELRY	163	QUAD
• 008	**APARTMENT**	062	DOCK	• 113	**KITCHEN**		
009	ART	• 063	**DOOR**			164	RADIO
• 010	**ATTIC**	064	DORMER	• 114	**LAUNDRY**	• 165	**REAR**
011	AUDIO	• 065	**DOWN**	• 115	**LEFT**	166	RECREATION
012	AUX	• 066	**DOWNSTAIRS**	116	LEVEL	167	REFRIG
013	AUXILIARY	067	DRAWER	• 117	**LIBRARY**	168	REFRIGERATION
		• 068	**DRIVEWAY**	• 118	**LIGHT**	169	RELAY 1
• 014	**BABY**	069	DRUG	119	LINE	170	RF
• 015	**BACK**	• 070	**DUCT**	120	LIQUOR	• 171	**RIGHT**
• 016	**BAR**			• 121	**LIVING**	• 172	**ROOM**
017	BARN	• 071	**EARTH**	• 122	**LOADING**	173	ROOF
• 018	**BASEMENT**	• 072	**EAST**	123	LOCK		
• 019	**BATHROOM**	073	ELECTRIC	124	LOOP	174	SAFE
• 020	**BED**	074	EMERGENCY	125	LORRA	175	SCREEN
• 021	**BEDROOM**	075	ENTRY	126	LOW	176	SENSOR
022	BELL	• 076	**EQUIPMENT**	• 127	**LOWER**	• 177	**SERVICE**
023	BELL 1	077	EXECUTIVE			• 178	**SHED**
024	BELL 2	• 078	**EXIT**	• 128	**MACHINE**	179	SHOCK
• 025	**BLOWER**	079	EXTERIOR	129	MAGNETIC	• 180	**SHOP**
• 026	**BOILER**			130	MAIDS	181	SHORT
027	BOTTOM	• 080	**FACTORY**	131	MAIN	182	SHOW
028	BOX	081	FAILURE	• 132	**MASTER**	• 183	**SIDE**
029	BREAK	082	FAMILY	133	MAT	184	SKYLIGHT
• 030	**BUILDING**	• 083	**FATHERS**	• 134	**MEDICAL**	185	SLIDING
031	BURNER	• 084	**FENCE**	135	MEDICINE	• 186	**SMOKE**
		085	FILE	136	MICROWAVE	187	SONIC
032	CABINET	• 086	**FIRE**	137	MONEY	• 188	**SONS**
• 033	**CALL**	• 087	**FLOOR**	138	MONITOR	• 189	**SOUTH**
034	CAMERA	088	FLOW	• 139	**MOTHERS**	190	SPRINKLER
035	CAR	089	FOIL	• 140	**MOTION**	191	STAMP
036	CASE	• 090	**FOYER**	141	MOTOR	• 192	**STATION**
037	CASH	091	FREEZER	142	MUD	193	STEREO
038	CCTV	• 092	**FRONT**			194	STORE
039	CEILING	093	FUR	• 143	**NORTH**	• 195	**STORAGE**
040	CELLAR	094	FURNACE	144	NURSERY	196	STORY
• 041	**CENTRAL**					197	STRESS
042	CIRCUIT	095	GALLERY	• 145	**OFFICE**	198	STRIKE
043	CLIP	• 096	**GARAGE**	146	OIL	199	SUMP
• 044	**CLOSED**	• 097	**GAS**	• 147	**OPEN**	200	SUPERVISED
045	COIN	098	GATE	148	OPENING	201	SUPERVISION
046	COLD	• 099	**GLASS**	• 149	**OUTSIDE**	202	SWIMMING
047	COATROOM	100	GROUND	150	OVERFLOW	203	SWITCH
048	COLLECTION	101	GUEST	151	OVERHEAD		
049	COMBUSTION	102	GUN			204	TAMPER
• 050	**COMPUTER**			152	PAINTING	205	TAPE
051	CONTACT	• 103	**HALL**	• 153	**PANIC**	206	TELCO
		• 104	**HEAT**	154	PASSIVE	207	TELEPHONE
• 052	**DAUGHTERS**	105	HIGH	• 155	**PATIO**	208	TELLER
053	DELAYED	106	HOLDUP	156	PERIMETER	• 209	**TEMPERATURE**

210	THERMOSTAT		
• 211	**TOOL**		
212	TRANSMITTER		
213	TRAP		
214	TRIGGERS		
215	ULTRA		
• 216	**UP**		
• 217	**UPPER**		
• 218	**UPSTAIRS**		
• 219	**UTILITY**		
220	VALVE		
221	VAULT		
222	VIBRATION		
223	VOLTAGE		
224	WALL		
225	WAREHOUSE		
226	WASH		
• 227	**WEST**		
• 228	**WINDOW**		
229	WINE		
• 230	**WING**		
231	WORK		
232	XMITTER		
233	YARD		
234	ZN-1		
• 235	**ZONE**		
236	0		
237	1		
238	1ST		
239	2		
240	2ND		
241	3		
242	3RD		
243	4		
244	4TH		
245	5		
246	5TH		
247	6		
248	6TH		
249	7		
250	7TH		
251	8		
252	8TH		
253	9		
254	9TH		
255	Custom Word 1		
	to		
274	Custom Word 20		

CHARACTER (ASCII) CHART
(For Adding Custom Words)

32	(space)	40	(	48	0	56	8	64	@	72	H	80	P	88	X
33	!	41	)	49	1	57	9	65	A	73	I	81	Q	89	Y
34	"	42	*	50	2	58	:	66	B	74	J	82	R	90	Z
35	#	43	+	51	3	59	;	67	C	75	K	83	S		
36	$	44	,	52	4	60	<	68	D	76	L	84	T		
37	%	45	-	53	5	61	=	69	E	77	M	85	U		
38	&	46	.	54	6	62	>	70	F	78	N	86	V		
39	'	47	/	55	7	63	?	71	G	79	O	87	W		

*Notes: This factory-provided vocabulary of words is subject to change.
Bulleted words in **bold face type** are those that are also available for use by the 4285/4286 VIP Module. If using a VIP module, and words other than these are selected for alpha descriptors, the voice module will not provide annunciation of those words.

Device Programming

Use this menu to program keypads, receivers, and relay modules.

From Data Field Programming Mode, press **#93** to display "ZONE PROG?". Press **0** repeatedly to until "DEVICE PROG?" is displayed.

DEVICE PROG? 1=YES 0=NO	Press **1** to enter Device Programming Mode.

DEVICE ADDRESS 01-31, 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 (**01-30**). Press ✳ to accept the entry. **Note:** You must use Device Address 04 for the 4285/4286 Voice Module, if you are using one. If not, you can use Address 04 for another device type.

DEVICE TYPE	Select the type of addressable device as follows:
	    0 = device not used
	    1 = alpha keypad (6139/6139R)
	    3 = RF receiver (4281/5881)
	    4 = output relay module (4204)
	    5 = voice (VIP) module (4285/4286)
	
	Press ✳ to accept the entry.

SUPERVISED CF?	If you selected device type 4 (output relay module) in the last step, this prompt will appear. Enter **1** if the unit is a 4204CF. If it is not, enter **0**. If you enter **1,** you will be able to program only Relay 1 (Output A) and Relay 3 (Output B) for functions on each module. This module is usually used to add two additional supervised bell outputs to the system. Press ✳ to continue.

CONSOLE PART.	If you selected device type 1 (alpha keypad), this prompt will appear. Enter the addressable device's default partition number (**01** to the maximum number of partitions that you programmed for the system in field 2*00). This is the primary partition for which you intend to use the device. Enter **9** to make this keypad a "Master" keypad for the system. Press ✳ to accept the entry.

RF EXPANDER HOUSE ID XX	If you selected device type 3 (RF receiver), this prompt will appear. Enter the 2-digit House ID (**00-31**). This is required for 5700 Series systems only, or for using a wireless keypad (5827/5827BD) with a 5800 Series system.

MODULE PART.	If you selected device type 5 (VIP Module), this prompt will appear. Enter the partition number (**1-8**) in which the module is located. Press ✳ to accept the entry.

SOUND OPTION

If you entered device type 1 (alpha keypad), this prompt will appear. You can program keypads individually to suppress arm/disarm beeps, entry/exit beeps, and Chime mode beeps. This helps prevent unwanted sounds from disturbing users.

Enter a number **00-03** for the keypad-sounding suppression options you want 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

KEYPAD GLBL?

If you entered device type 1 (alpha keypad), this prompt will appear. You can set up each keypad so that users with access to multiple partitions can arm and disarm them through the keypad. To enable this keypad for global arming and disarming, enter **1**. To prevent global arming and disarming from this keypad, enter **0**.

The screen will display the next device number to be programmed.

Press **00** + ✳ to exit Menu Mode.

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

Enter **[Installer Code] + OFF** to cancel the system's settling delay.

Device Address **00** is always set as an alpha keypad assigned to Partition 1 with no sounder suppression options.

Relay Programming

The VISTA-100 supports up to 16 relay outputs. Relays can be used to perform many different functions and actions. You must program each relay 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 might 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 four different 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:

A) 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 Relay Output Devices" 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 RESPONSE Relay action is not dependent upon one of the above events.

2. **ZONE LIST (ZL)** is a group of zones to which the EVENT applies in order to activate a particular device. Note that you can program 8 Zone Lists; when the selected EVENT (alarm, fault or trouble) occurs in **any** zone in the selected Start Zone List (1-8), the selected device will START.

B) 1. **ZONE TYPE/SYSTEM OPERATION (ZT).** If all zones that you want to use to start the device have the same response type, and there are no other zones of this type that are **not** to activate this device, you can use ZONE TYPE instead of ZONE LIST and EVENT to activate the device.

If you want to use a System Operation, such as DISARMING or ANY FIRE ALARM, to activate the device, enter the appropriate choice under the "ZONE TYPE" option. ***The "ZONE TYPE" option functions independently of the EVENT/ZONE LIST combination.***

If you select a specific ZONE TYPE, any zone of that response type that goes into alarm, trouble, or fault will cause the device to activate as selected in "ACTION." If you select the same ZONE TYPE for the STOP programming, when any zone of that type *restores,* the device will de-activate.

If you select a SYSTEM OPERATION, that operation will cause the device to activate as you selected in "ACTION." The different choices for "ZONE TYPE" and "SYSTEM OPERATION" are listed in "Programming Relay Output Devices" later in this section and on the Programming Form.

2. **PARTITION NO. (P).** You can limit the device's Start ZONE TYPE/SYSTEM OPERATION 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:

A) 1. **RESTORE ZONE LIST (ZL)**. If you use a ZONE LIST 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 you programmed to START the device; therefore, use a RESTORE ZONE LIST only when you use a ZONE LIST to start the device.

B) 1. **ZONE TYPE/SYSTEM OPERATION (ZT).** Instead of using a RESTORE ZONE LIST, you can select a specific zone (response) type or system operation action to de-activate the device.

If you choose a specific ZONE TYPE, when any zone of that response type restores from a previous alarm, trouble, or fault condition, the device will de-activate.

If you choose a SYSTEM OPERATION, that operation will cause the device to de-activate. The choices for ZONE TYPE and SYSTEM OPERATION are listed in "Programming Relay Output Devices" below, and in the Programming Form.

2. **PARTITION NO. (P).** You can limit the device's Stop Zone Type/System Operation to an occurrence on one partition (1-8), or on any partition (0).

Programming Relay Output Devices

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 Relay Programming Mode, press ✳ to advance to the next screen. Press [#] to return to the previous screen.

ENTER RELAY NO. (00=QUIT) 01	Enter the relay (output device) identification number **01-16**. This is a reference number only. You will program the actual module address and relay number at the two final 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 the relay will respond when activated by the START event. Enter the Action you want 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 can be activated by an Event used in conjunction with a Zone List, **and/or** by a Zone Type/System Operation. If you are using an Event/Zone List combination, enter the event code as follows: **0**=not used; **1**=alarm; **2**=fault; **3**=trouble If you are 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 you can use to initiate the Start or Stop relay action. If you are using a Zone List to start this relay action, enter the Zone List number **1-8**. If you are not using a Zone List, enter **0**. Press ✳ to continue.

| 02 START: ZN TYPE |

You can use a Zone Type/System Operation **instead** of or **in addition** to an Event/Zone List combination to start the relay action. If you use a Zone Type/System Operation, enter one of the 2-digit codes listed below. Press ⍟ to continue.

Choices for Start/Stop Zone Types:

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
16 = Fire With Verification
17 = Fire Waterflow
23 = No alarm response
    (for output relay activation, such
    as for access control purposes)

Choices for Start/Stop System Operation:

18 = Fire Supervisory
19 = 24 Hr. Trouble
20 = Arming-Stay
21 = Arming-Away
22 = Disarming (Code + Off)
30 = On Second 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 Timeout **
37 = 2 Times Bell Timeout**
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 **(this
    type must be selected for both
    START and STOP operation)**
61 = Code + [#] + 67 Key Entry
62 = Bell 2 Timeout
63 = Aux. Relay Timeout

** Or at Disarming, whichever occurs
    earlier

If you use options 57 and/or 58 (usually used as the STOP Zone Type), you must program data fields 1*74 and 1*75 for the respective relay timeouts for minutes and seconds.

| 02 START PART |

If the starting event is limited to a specific partition, enter that partition number (**1-8**). Enter **0** if the event can occur in any partition. Press ⍟ to continue.

| 02 STOP: ZN LIST |
| NO LIST |

If you are using a Zone List to stop this relay action, enter the Zone List number (**1-8**). The **restore** of a zone on the Zone List will stop the relay. If you are not using a Zone List, enter **0**. Press ⍟ to continue.

| 02 STOP: ZN TYP |

If you are using a Zone Type/System Operation to stop the relay action, enter the 2-digit code as listed in the start Zone Type/System Operation table above. 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.

| RELAY GROUP |

Relays may be grouped for common activation by time-driven events (commands **06-10**). Enter **0** (no group) or **1-8** for a specific group number. Press ⍟ to continue.

01 FIRE BELL? 1 = YES 0 = NO	If this relay is on a supervised 4204CF module, you can use it as an additional fire bell. Enter **1** (YES) if it is to be used this way; enter **0** (NO) if it is not. This tells the system which relays are to be activated during a fire drill or Fire Walk-Test. Press ⊛ to continue.
RESTRICTION 1=YES 0=NO	The system may have some devices that are not intended to be under end-user control, such as relays activating fire doors or machinery. Enter **1** (YES) if the end user will be restricted from accessing this relay group. If the device is a fire bell, it will be restricted automatically. Press ⊛ to continue.
ECP ADDRESS	For relay modules (4204/4204CF), enter the actual relay module's address (**01-15**) as set by its DIP switches. You can install up to 8 modules in a system.
MODULE RELAY #	For 4204 relay outputs, enter the specific relay number on the module (**1-4**). **For 4204CF outputs, *enter only module relay number 1 (Output A) or relay number 3 (Output B).*** These are the only two programmable relays on the 4204CF module. Press ⊛ to continue. The keypad will display the START and STOP summary screens again. Press ⊛ to continue.

When you have programmed all relays, enter **00** at the "ENTER RELAY NO." prompt.

If you are defining a Zone List, continue to the next section. If not, enter **00** + ⊛ at the next two prompts. The system will display "QUIT MENU MODE?" Enter **1** (YES) or **0** (NO). Then enter ***99** to exit programming completely.

If you want supervision of the 4204CF relay output, enter a response type for that output's corresponding supervisory zone. The number of the supervisory zone to which you assign the response type is equal to 600 + [Relay ID No.]. For example, if you are programming Relay ID No. 1, the relay's supervisory zone is 601. Program this zone for response type 19 (24-Hr. Trouble) in **#93** Zone Programming Mode.

Zone List Programming

After you have programmed all relays and you have entered **00** at the "ENTER RELAY NO." prompt, you will enter a Zone List. If you assigned a Zone List number to start or stop a relay, you must define the zones belonging to that list by following this procedure:

Enter Zone LIST 00=QUIT 00	Enter the Zone List number **01-08**. Enter **00** to quit.
001 Enter Zn Num. 000=QUIT 000	Enter the number of each zone to be included in this Zone List. If the number has fewer than 3 digits, enter leading zeros. Press ⊛ after each zone number is entered. After you have entered all zones, enter **000**, then press ⊛ .
001 Del Zn LIST? 0=No 1=Yes	Enter **0** to save the Zone List. Enter **1** to delete the Zone List.
001 Delete Zone? 0=No 1=Yes	Enter **1** to delete one or more zones in the Zone List. Enter **0** to return to the "ENTER ZONE LIST" prompt. If you entered 1, you will see this prompt.

001 Zn to Delete? 000=QUIT 000	Enter each zone number to be deleted from the Zone List, pressing ✳ after each number.
View Zn LIST 00=QUIT 00	To view a Zone List, press **00** at the "ENTER ZONE LIST" prompt. You will see the prompt at left. Enter the Zone List number that you want to view. Press ✳ to continue.
XXX Assigned Zone 000=QUIT 000	Press ✳ to scroll through all zones in the list. Enter **000** + ✳ to exit. Press *99 to exit Program Mode.

Relay Voice Descriptors

If you are using the 4285/4286 VIP Module, you can program voice descriptors for each of the 16 relays used in the system. The voice module will announce these descriptors when you access the relays in the # 70 Relay Access Mode via telephone.

Each voice descriptor can consist of up to 3 words that you select from the Relay Voice Descriptor Vocabulary List (later in this section).

Use the index numbers from the Relay Voice Descriptor Vocabulary List only for relay voice descriptors. For normal system voice annunciation (e.g., alarms, troubles, status), use the highlighted words in the Alpha Descriptor Vocabulary list earlier in this section.

To enter relay voice descriptors, take the following steps:

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 the next screen. Press [#] to return to the 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**-**16**) for the relay you want to program, 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 the 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 you do not want a second word, press **000**. Press ✳ to accept the 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 you do not want a third word, press **000**. Press ✳ to accept the 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 Data Field Programming Mode. Enter **[Installer Code]** + **OFF** to cancel the system's settling delay.

Relay Voice Descriptors and Custom Word Substitutes Vocabulary

Word	Index	Word	Index	Word	Index	Word	Index	Word	Index
Air	116	Detector	128	Gas	138	Off	011	South	155
Alarm	255	Device	060	Glass	139	Office	147	Stairs	006
And	067	Dim	163			On	058	Station	156
Apartment	117	Dining	031	Hall	050	One	070	Storage	157
Appliances	161	Door	016	Heat	010	Open	148	Sun	154
Area	118	Down	008			Outside	210	System	062
Attic	119	Downstairs	184	Inside	209				
		Driveway	130			Panic	013	Temperature	158
Baby	120	Duct	131	Kitchen	022	Partition	090	Third	159
Back	121					Patio	149	Three	072
Bar	122	East	132	Laundry	140	Phone	061	Tool	213
Basement	021	Eight	077	Left	027	Power	063	Two	071
Bathroom	051	Eighth	221	Library	141	Pump	166		
Battery	053	Equipment	133	Light	019			Up	025
Bed	092	Exit	004	Living	030	Rear	088	Upper	187
Bedroom	015			Loading	142	Right	028	Upstairs	183
Blower	123	Factory	134	Lower	094	Room	018	Utility	185
Boiler	124	Father's	211						
Bright	162	Fence	135	Machine	143	's	007	West	215
Building	125	Fifth	218	Master	144	Second	056	Window	017
Burglary	039	Fire	040	Medical	014	Service	150	Wing	216
		First	136	Mother's	212	Seven	076		
Call	009	Five	074	Motion	145	Seventh	220	Zero	069
Central	089	Floor	029			Shed	151	Zone	002
Chime	054	Four	073	Nine	078	Shop	152		
Closed	126	Fourth	217	Ninth	222	Side	153		
Computer	127	Foyer	137	No	165	Six	075		
Console	066	Front	087	North	146	Sixth	219		
Daughter's	208			Not	012	Smoke	024		
Den	052	Garage	023			Son's	223		

Custom Word Substitutes for VIP Module Annunciation

You can program a substitute word 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 you do not assign a substitute word, the VIP module will not annunciate the zone descriptor at all, but only the zone number.

To enter custom word substitutes, take the following steps:

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?
0=no   1=yes

Enter **1** at this prompt.

CUSTOM WORD NO.
00=QUIT

Enter the custom word number (**01-20**) for which you want to assign a voice substitute. 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 Descriptors and Custom Word Substitutes Vocabulary List. Press ✱ to accept the entry.

The system displays the "CUSTOM WORD NO." prompt. Enter the next custom word number to be substituted or enter **00** to quit.

RF Serial Number Clear Mode

Use this mode if an undesired transmitter has been enrolled during sequential enrolling, causing each subsequent serial number to be assigned to an incorrect zone. If you perform this operation, all RF serial numbers will be deleted, leaving all other zone information intact. You can 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, take the following steps:

1. Enter Data Field Programming Mode by entering **[Installer Code] + 8 0 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#? 1 = YES, 0 = NO 0	Enter **1** if you want to clear all RF wireless serial numbers. The "ARE YOU SURE?" prompt is displayed as follows:

ARE YOU SURE? 1 = YES, 0 = NO 0	Enter **1** if you want to clear all RF serial numbers. Re-enter Sequential Mode to enroll wireless transmitters.

Scheduling Options

. . . .

In This Section

. . . .

Introduction to Scheduling

This section describes the scheduling features provided with the VISTA-100.

UL
- You must program Bypass and Auto-Arm Fail reports for UL installations.
- Auto-disarming is not for use in UL installations.

The scheduling features of the VISTA-100 allow certain operations to be automated, such as auto-arming, auto-disarming, auto-bypassing and unbypassing of zones, and activating relay outputs (using 4204 modules).

The system uses time windows for defining open/close schedules, holiday schedules, and user-defined temporary schedules. You can program scheduled events through user-

friendly menus (#80, #81 & #83 modes), explained in detail in this section. These menus take you step by step through the options.

Auto Arming	The system can automatically arm (AWAY mode) itself at the end of a predetermined closing (arming) time window, if the system has not been armed manually. Auto-Arming can be delayed three ways: • by use of the Auto-Arm Delay • by the Auto-Arm Warning • by manually extending the closing (arming) time window with a keypad command. The system can also automatically bypass any open zones when Auto-Arming.
Auto-Arm Delay	Auto-Arm Delay provides a delay (grace period) before Auto-Arming. The period starts at the end of the closing window. You set the timer for the delay in 4-minute increments, up to 56 minutes, in partition-specific program field 2*05. At the end of the delay period, the Auto-Arm warning starts.
Auto-Arm Warning	The Auto-Arm Warning causes the keypad sounder to warn the user of an impending Auto-Arm. In partition-specific field 2*06, you can set the warning to start 1 to 15 minutes prior to arming. During this period the keypad will beep every 15 seconds and display "AUTO ARM ALERT." When the remaining time drops below 60 seconds, the keypads will begin to beep every 5 seconds. The panel will arm at the conclusion of the Auto-Arm Warning period.
Extend Closing Window	A user can manually extend the arm (closing) time window by 1 or 2 hours by entering **[User Code] + #82** at the keypad. The system prompts the user to enter the desired extension time of 1 or 2 hours (refer to *Section 28: Keypad Functions*). This feature is useful if a user must stay on the premises later than usual.
Force Arm	The Enable Force Arm option causes the panel to attempt to bypass any faulted zones prior to auto-arming. This option is called a force-arm. You set this option in partition-specific program field 2*08.
Auto Disarming	The system can automatically disarm at the end of a predetermined time window, if the system has not been disarmed manually. The disarming time can be delayed by using the auto-disarm delay feature. In addition, the system can restrict disarming to a pre-determined time.
Auto Disarm Delay	Auto Disarm Delay provides a delay before Auto Disarming. This delay is added to the end of the disarm window. You can set the delay in 4-minute increments, up to 56 minutes, in partition-specific program field 2*07.
Restrict Disarming	This option, set in partition-specific field 2*10, allows disarming by operator-level users only during the disarm time window; the arming window (in case user needs to re-enter the premises after arming); or when the system is in alarm.
Exception Reports	This option allows a means of reporting openings and closings by exception (sent only if an event occurs outside of the predetermined opening/closing time windows). The system sends missed Open/Close reports if no opening or closing occurs by the end of the corresponding window.

Time-Driven Events	By using time windows, the system can automatically activate and de-activate relays at predetermined times to turn lights or other devices on and off.
	The system can perform the same actions on a daily basis, or can be made to perform an action only once (e.g., turn on the porch light this Wednesday at 8 p.m.).
	The system also provides up to 20 "timers" available to the end user for activating output devices at preset times and on preset days.
Limitation of Access by Time	You can limit a user's access to a certain time period, during which he can perform system functions. Outside this time, the user's code will be inactive. The system provides up to 8 access schedules, each consisting of two time windows (one for opening, one for closing) for each day of the week; and two time windows for holidays. You can program the access schedules via #80 Menu Mode, and you can enable them for a given user when you add that user to the system. If a user tries to operate the system outside of the schedule, the alpha keypad will display "ACCESS DENIED."

Time Windows Definitions

Scheduled events are based on time windows, which are periods of time during which an event can take place. Time windows are defined by a start time and stop time. The system supports up to 20 time windows. The windows are shared by the 8 partitions, and the windows are used for open/close schedules as well as for time-driven event control

To understand time windows and scheduling, consider a store that has the following hours:

Monday to Thursday:	9 a.m. to 6 p.m.
Friday:	9 a.m. to 9 p.m.
Saturday:	10 a.m. to 4 p.m.
Sunday:	Closed
Holidays:	Closed

Assume the owner wants the following time windows to allow time for employees to arm or disarm the system:

Monday to Thursday:	Open (disarm)	8 a.m. to 9 a.m.
	Close (arm)	6 p.m. to 6:30 p.m.
Friday:	Open (disarm)	8 a.m. to 9 a.m.
	Close (arm)	9 p.m. to 9:30 p.m.
Saturday:	Open (disarm)	9 a.m. to 10 a.m.
	Close (arm)	4 p.m. to 4:30 p.m.
Sunday & Holidays:	Closed	

To provide these schedules, the following 5 time windows need to be programmed:

Window	Start	Stop	Purpose
1	8 a.m.	9 a.m.	Monday to Friday open window
2	9 a.m.	10 a.m.	Saturday open window
3	4 p.m.	4:30 p.m.	Saturday close window
4	6 p.m.	6:30 p.m.	Monday to Thursday close window
5	9 p.m.	9:30 p.m.	Friday close window

Using the #80 Menu Mode (described in a later section), you can program open/close schedules by assigning each time window to a day of the week (time window numbers are entered in 2 digits):

<u>Mon</u>	<u>Tue</u>	<u>Wed</u>	<u>Thu</u>	<u>Fri</u>	<u>Sat</u>	<u>Sun</u>	<u>Hol</u>
Op/Cl	Op/Cl	Op/Cl	Op/Cl	Op/Cl	Op/Cl	Op/Cl	Op/Cl
01/04	01/04	01/04	01/04	01/05	02/03	00/00	00/00

Note: Enter **00** for those days on which the store is closed.

When time windows are programmed, employees can arm and disarm the system within the open and close time windows without causing a report to be sent to the central station (as will occur if you have requested reporting by exception). The system can be programmed to arm or disarm automatically if an employee fails to arm or disarm manually by the end of the window.

You can activate time-driven events at different times using a window. For example, you can schedule an event to occur:

• At the beginning of a time window

• At the end of a time window

• During a time window active period only (on at the beginning of the window, off at the end)

• At both the beginning and the end of the time window (for example, you can schedule a buzzer to sound at the beginning and end of a coffee break)

Open/Close Definitions

Opening and closing windows are controlled by schedules that you define. There are three types of schedule: Daily, Holiday, and Temporary. You can also use time-driven events to schedule opening and closing windows.

Daily Schedule	Each partition can have one Daily schedule consisting of one opening window and one closing window.
Holiday Schedule	A Holiday schedule will override the regular daily schedule. You can assign a Holiday schedule to specific days of the year.
Temporary Schedule	The Temporary schedule provides a method for the user to override the Daily and Holiday schedules. It consists of one opening window and one closing window for each day of the week. The schedule automatically takes effect for up to one week, after which it is deactivated. Program this schedule using the #81 Temporary Schedule Menu Mode, described later in this section.
Additional Schedules	You can program additional opening and closing schedules using the **time-driven event** programming options. For example, you can program a schedule for normal store opening/closing with open/close schedules, and program another open/close schedule for beginning and ending lunch hour, using the time-driven event schedule programming. Refer to the "Time-Driven Events Programming" paragraph later in this section for detailed information.
Open/Close Reports by Exception	The system can help reduce communication traffic to the central station by using the Exception reporting feature, set in partition-specific program field 2*09. The Open/Close by Exception option suppresses reports from being sent to the central station if an arm or disarm is done within the expected time window. If you use this option, reports are only sent if the open/close occurs outside the assigned time window. The system keeps a record of **all** openings/closings in its event log.
	Normally, an opening that occurs outside of the opening window will trigger a report. The Exception reporting feature is used if an opening occurs immediately after a closing (during the closing window), as when a user arms the system, then must re-enter the premises. In that case, no report is sent. This feature is designed to prevent false alarms from being sent to the central station.
	The following table shows how you can use Open/Close by Exception reporting.

Example of Open/Close Exception Reporting & Scheduling

6:01PM 5:59AM	6AM 9AM	9:01AM 3:59PM	4PM 6PM	6:01PM 5:59AM
Early Opening reports are sent if the system is disarmed before the opening window begins.	Opening Window No reports are sent if the system is disarmed during this time window.	Auto-disarm delay begins. Auto-disarm occurs after the delay (if auto-disarm is enabled). Missed Opening reports are sent if a user has not disarmed by the end of the opening window. Late Opening reports are sent if a user disarms after the opening window ends. Early Closing reports are sent if a user arms before the closing window begins.	Closing Window No reports are sent if the system is armed during this time window, or if it is disarmed if the user re-enters the premises.	Auto-arm delay begins. Auto-arm warning begins. Auto-arm occurs after the warning expires (if auto arm is enabled). Missed Closing reports are sent if arming by user has not occurred at the expiration of the closing window. Late Closing reports are sent if the system is armed after the closing window expires.

Programming with #80 Scheduling Menu Mode

You can use #80 Scheduling Menu Mode to program most of the scheduling and timed-event options. You can program other options through Data Field Programming Mode.

To enter #80 Scheduling Menu Mode, the system must be in normal operating mode (all partitions disarmed). Enter **[Installer Code] + # + 80**.

In #80 Scheduling Menu Mode, you can:
- Define time windows
- Assign open/close schedules to each partition
- Assign holiday schedules
- Program time-driven events (for system functions and relay activation)
- Assign access control schedules

You program the following scheduling features in Data Field Programming Mode:

System-Wide Fields:	1*74 -1*75	Relay timeout values
	2*01-2*02	Daylight Savings Time options
	2*11	Allow Disarming outside window if alarm occurs
	2*13 -2*14	Scheduling related report codes
Partition-specific fields:	1*76	Access control relay for a specified partition
	2*05	Auto-arm delay value
	2*06	Auto-arm warning time
	2*07	Auto-disarm delay value
	2*08	Force arm enable
	2*09	Open/close reporting by exception
	2*10	Restrict disarm only during windows

You program event-driven relay activation options using the #93 Menu Mode, Relay Programming. The actions you program in this mode occur in **response** to a programmed action. However, relay activation can also be time-driven, and can be used to initiate a desired action. You program time-driven relay activation options using the #80 Scheduling Menu Mode. Refer to the "Time Driven Event Programming" paragraph later in this section for procedures.

Steps to Programming Scheduling Options

To program scheduling options using #80 Scheduling Menu Mode, take the following steps:

Using the worksheets later in this section, define the following items:
- Time windows (up to 20)
- Daily open/close schedules (one schedule per day, per partition)
- Holidays to be used by the system (up to 16)
- Holiday schedules (up to 8, one per partition)
- Temporary schedules
- Limitation of access times (up to 8 schedules)
- Time-driven events (up to 20)

Use #80 Scheduling Menu Mode to program the following:
- Time windows
- Open/close schedules
- Time-driven events
- Access schedules

Basic Scheduling Menu Structure

To program schedules, enter Scheduling Menu Mode by pressing **[Installer Code] + [#] + 80**.

There are 5 sets of scheduling menus, as shown below. To select a menu set, enter **1** at a displayed main menu prompt. You will then see prompts for programming that scheduling feature. Enter **0** to skip a menu screen and display the next menu option.

| Time Window? |
| 1 Yes   0 = No   0 |

This prompt is displayed when you enter Scheduling Menu Mode. Enter **1** to program time windows. Refer to "Programming Time Windows" in this section for detailed procedures. Enter **0** to skip Time Windows to the "O/C Schedules?" prompt.

| O/C Schedules? |
| 1 Yes   0 = No   0 |

Enter **1** to program opening and closing schedules. Refer to "Programming Open/Close Schedules" in this section for detailed procedures. Enter **0** to move to the "Holidays?" prompt.

| Holidays? |
| 1 Yes   0 = No   0 |

Enter **1** to program Holiday schedules. Refer to "Programming Holiday Schedules" in this section for detailed procedures. Enter **0** to go to the "Timed Events?" prompt.

| Timed Events? |
| 1 Yes   0 = No   0 |

Enter **1** to program timed events for relay outputs, additional schedules, or other system functions. Refer to the Time-Driven Event Worksheet for detailed procedures. Enter **0** to move to the "Access Sched.?" prompt.

| Access Sched. ? |
| 1 Yes   0 = No   0 |

Enter **1** to program access schedules. Refer to "Access Control Schedules" in this section for detailed procedures. Enter **0** to move to the "Quit?" prompt.

| Quit? |
| 1 Yes   0 = No   0 |

Enter **1** to quit #80 Scheduling Menu Mode and return to normal operating mode. Enter **0** if you need to make any changes or review the scheduling programming options. If you press **0**, the "Time Window?" prompt is displayed.

Time Windows Definitions Worksheet

The system provides 20 time windows that you can define with start and stop times. These windows are the basis of the scheduling system. You can use them for various open/close and access schedules, as well as for output controls. Windows are shared among all 8 partitions. The following worksheets will help you define time windows and scheduling aspects of this system before you program them. Note that time windows **can** span midnight.

Time Window Number	Start Time (HH:MM)	Stop Time (HH:MM)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

You will use this worksheet for some of the programming procedures that are described later in this section. You might want to make a photocopy of this page to use for each job.

Time windows are defined by a start and a stop time using the Time Windows programming menu.

Programming Time Windows

Enter Scheduling Mode by entering **[Installer code] + [#] + 80**. The keypad will display the Time Window programming prompt.

✓ You cannot enter Scheduling Mode if any partition is armed.

Time Window?
1 Yes   0 = No   0

Enter **1** at this main menu prompt to program time windows. Enter **0** to exit Scheduling Mode.

Time Window # ?
01-20, 00 = Quit 01

Enter the 2-digit time window number you want to program. Press ✳ to accept the entry.

Enter **00**, then ✳ at the "Time Window # ?" prompt to quit

Time Window programming and display the "Quit?" prompt.

Enter **0** at the "Quit?" prompt to return to the main menu choices and continue programming. Enter **1** to quit Scheduling Menu Mode.

```
Quit?
1 = YES  0 = NO  0
```

```
01  TIME WINDOW
00:00AM  00:00AM
```

If you entered a time window number, the cursor is positioned on the tens-of-hours digit of the window start time. Enter the desired start hour and press ⧆ . The cursor moves to the minutes. Enter the desired minutes and press ⧆ . Toggle the AM/PM indication by pressing any key 0-9 while the cursor is under the letter A/P position. Repeat for the end-of-window time entry.

When the entry is complete, the "Time Window # ?" prompt is displayed again. Enter the next time window number to be programmed and repeat the procedure.

When all time windows have been programmed, enter **00** at the "Time Window # ?" prompt to exit the Time Window menus.

Because the time windows are shared among all partitions, it is important to make sure that changing a time window does not adversely affect desired actions in other partitions.

Daily Open/Close Worksheet

Write in the open and close time window numbers for each partition.

Part	Mon		Tues		Wed		Thur		Fri		Sat		Sun		Hol	
	Op	Cl	Op	Cl	Op	Cl	Op	Cl	Op	Cl	Op	Cl	Op	Cl	Op	Cl
1																
2																
3																
4																
5																
6																
7																
8																

You will use this worksheet for programming open and close schedules.

Programming Open/Close Schedules

To each partition, you can assign one daily open/close schedule and a holiday open/close schedule. You program temporary schedules separately, using the #81 Temporary Schedule Menu Mode. To program additional open/close schedules, see the Time-Driven Events Worksheet.

Enter Scheduling Menu Mode by entering **[Installer Code] + [#] + 80**. Press **0** until the "O/C Schedules?" prompt appears.

```
O/C Schedules?
1 Yes    0 = No     0
```

Enter **1** to program opening and closing schedules.

```
Partition # ?
01-08,  00 = Quit 01
```

Enter the partition number to which the open/close schedules will apply.

Enter **00**, then ⧆ at the "Partition # ?" prompt to exit

Open/Close Schedules programming. You will see the "Quit?" prompt.

Enter **0** at the "Quit?" prompt to return to the main menu choices and continue programming. Enter **1** to exit Scheduling Menu Mode.

```
Quit?
1 = YES  0 = NO  0
```

```
Mon P1 OP WIND.?
00:00   00:00   00
```

For Monday, enter a time window number (01-20) for the day's opening schedule. Enter **00** if you don't want a schedule for Monday. As you key in the number, the times that have been stored for that window are displayed. Press ✳ to accept the entry.

```
Mon P1 CL WIND.?
00:00 00:00     00
```

Enter the time window number for Monday's closing schedule. As you enter the number, the times that were stored for the window are displayed. Press ✳ to accept the entry.

```
Tue P1 OP WIND.?
00:00   00:00   00
```

The keypad will prompt for Tuesday's open/close schedule, followed by the rest of the days of the week. Follow the procedure used for Monday's prompts. When the last day of the week has been programmed, the holiday opening and closing window prompts are displayed.

```
Hol P1 OP WIND.?
00:00 00:00     00
```

Enter the holiday opening time window number. Press ✳ to accept the entry.

```
Hol P1 CL WIND.?
00:00 00:00 00
```

Enter the holiday closing time window number. Press ✳ to accept the entry.

When the entries are completed, the "Partition # ?" prompt is displayed again. Repeat this procedure for each partition in the system.

When all partitions have been programmed, enter **00** at the "Partition # ?" prompt to quit Open/Close Schedules.

Holiday Definitions & Schedule Worksheet

You can define up to 16 holidays for the system. Each holiday can be assigned to any combination of partitions. List the desired holidays on the following worksheet. Check the partitions to which each holiday applies.

HOL					Partition				
	Month/Day	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	/								
2	/								
3	/								
4	/								
5	/								
6	/								
7	/								
8	/								
9	/								
10	/								
11	/								
12	/								
13	/								
14	/								
15	/								
16	/								

Programming Holiday Schedules

After entering Scheduling Menu Mode, press **0** until the "Holidays?" prompt appears.

```
Holidays?
1 Yes   0 = No     0
```

Enter **1** to program Holiday schedules.

```
HOLIDAY NUMBER?
01-16,  00=Quit 01
```

Enter the 2-digit holiday number (**01-16**) to be programmed, and press ✳ to accept the entry.

When you are finished programming Holidays, enter **00** at the "HOLIDAY NUMBER?" prompt to exit the Holiday menus. Press ✳ to display the "Quit?" prompt.

To continue programming, enter **0** at the "Quit?" prompt. To exit Scheduling Menu Mode, enter **1**.

```
Quit?
1 = YES  0 = NO  0
```

```
01 ENTER DATE
    00/00
```

Enter the appropriate 2-digit month, then press ✳ to move to the day field. Enter the appropriate 2-digit day and press ✳ to accept the entry.

```
Part?  12345678
 Hit 0-8  x  x
```

Holidays can be set for any partition as follows. Press **0** to toggle all partitions on or off. To toggle an individual partition on or off, use keys 1-8 to toggle on or off the letter x under the partition to which this holiday will apply. Press ✳ when you have finished.

The "HOLIDAY NUMBER?" prompt will be displayed again. Repeat the procedure for each holiday to be programmed.

When you have programmed all holidays, enter **00** at the "HOLIDAY NUMBER?" prompt to exit the Holiday menus.

Time-Driven Event Worksheet

You can program up to 20 events to be activated according to a time schedule. Each event is governed by previously defined time windows.

The actions that you can program to activate automatically at set times include relay commands, arm/disarm and zone bypassing commands, and open/close access conditions.

Time-Driven Event Worksheet

Sched. Num.	Time Window	Day(s)								Action Desired	Action Specifier	Activation Time
		M	T	W	T	F	S	S	H			
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

YOU MIGHT WANT TO COPY THIS WORKSHEET FOR USE IN EACH INSTALLATION.

To fill out the worksheet, take the following steps:

1. Each row in the worksheet represents one time-driven event. **For each event, enter a time window number (01-20)** and check the days of the week the action should be activated.

2. **Enter the codes for the desired action and action specifier.** Actions are the events that will take place when the scheduled time is reached. The action specifier defines what will be affected by the action: a relay, relay group, partition, Zone List, or user group. The action specifier varies, depending on the type of action you select.

   Use the following action codes when programming time-driven events. Note that these codes are unrelated to the relay codes programmed in the #93 Menu Mode–Relay Programming Mode.

Relay commands

Action Code	Action Specifier
01 Relay On	Relay #
02 Relay Off	Relay #
03 Relay Close for 2 seconds	Relay #
04 Relay Close XX minutes (set in field 1*74)	Relay #
05 Relay Close YY seconds (set in field 1*75)	Relay #
06 Relay Group On	Relay Group #
07 Relay Group Off	Relay Group #
08 Relay Group Close for 2 seconds	Relay Group #
09 Relay Group Close XX minutes (set in field 1*74)	Relay Group #
10 Relay Group Close YY seconds (set in field 1*75)	Relay Group #

Arm/Disarm Commands

For automatic arming and disarming functions, you must use activation times 1 (Beginning), 2 (End), or 3 (During). You can use During to arm or disarm the control for a specific time only. For example, if you select During with Arm-STAY, the system will Arm-STAY at the beginning of the window and disarm at the end.

Action Code	Action Specifier
20 Arm-STAY	Partition(s)
21 Arm-AWAY	Partition(s)
22 Disarm	Partition(s)
23 Force Arm-STAY (Auto-bypass faulted zones)	Partition(s)
24 Force Arm-AWAY (Auto-bypass faulted zones)	Partition(s)

The auto-arm warning (field 2*06) applies.

Bypass commands

You must use activation times 1 (Beginning), 2 (End), or 3 (During) for bypass functions. If you select 3 (During) for auto bypass, the system will bypass the zone(s) you specified at the beginning of the window, and unbypass the zone(s) at the end of the window. If you select 3 (During) for auto unbypassing, the system will remove the bypass at the beginning of the window, and restore the bypass at the end of the window.

Action Code	Action Specifier
30 Auto bypass - Zone list	Zone list #
31 Auto unbypass - Zone list	Zone list #

Open/Close Windows

Activation time 3 (During) is the only valid choice for these functions:

Action Code	Action Specifier
40 Enable Opening Window by partition	Partition(s)
41 Enable Closing Window by partition	Partition(s)
42 Enable Access Window for Access group	Access Group
50 Off-Normal Reminder (Starts local keypad beeping if fire off-normal condition exists)	None

3. **Enter the desired Activation time,** which specifies when the action is to take place relative to the time window. Select from the following codes, observing the restrictions described above:

Activation Time	Description
1	Beginning of time window
2	End of time window
3	During time window active period only (on at beginning of the window, off at the end). This can be used in conjunction with the arm, disarm, or bypass commands to control a part of the system during the window. For example, if bypass is set to activate during the window, the zones in the Zone List will be bypassed at the beginning of the window and unbypassed at the end of the window.
4	Beginning and end of time window. For example, you could activate the coffee break buzzer at the beginning and end of the break period. In this example, if relay pulse were selected, the relay would pulse for 2 seconds at the beginning of the window, signaling the beginning of the coffee break. At the end of the window it would pulse again, signaling the end of coffee break.

Time-Driven Event Programming

You can activate outputs, bypass zones, or arm/disarm the system according to a time schedule. You can program up to 20 events for the system. You must first define time windows before you can use them to trigger events.

If you use time-driven events to control relays, you must first program the following menu items, using #93 Menu Mode - Relay Programming:

Enter Relay No. (reference identification number)

Relay Group (if applicable)

Restriction

Relay Type (4204 or none)

ECP Address And specific Relay No. if 4204 relays

After you enter Scheduling Menu Mode, press **0** until the "Timed Events?" prompt appears.

```
Timed Events?
1 Yes   0 = No     0
```

Enter **1** to program timed events using relay outputs.

```
TIMED EVENT  # ?
01-20, 00=Quit 01
```

Enter a number for the timed event (**01-20**) and press ✳ .

The system will prompt you for the action you want to take. When you are finished programming time-driven events, enter **00** at the "TIMED EVENT # ?" prompt to exit the Timed Event menus and display the "Quit?" prompt.

Enter **0** at the "Quit?" prompt to return to the main menu choices and continue programming. Enter **1** to quit Scheduling Menu Mode.

```
Quit?
1 = YES  0 = NO  0
```

```
01 ACTION?
none            00
```

Enter the code for the action you want for this event, using the list at left. The action can be an output command, an arming command, or any other time-driven event. Press ✳ to accept the entry. You will see the appropriate action specifier prompt, as described on the next page.

Action Codes:
01=Relay On
02=Relay Off
03=Relay Close for 2 seconds
04=Relay Close XX minutes
05=Relay Close YY seconds

06=Relay Group On
07=Relay Group Off
08=Relay Group Close for 2 seconds
09=Relay Group Close XX minutes
10=Relay Group Close YY seconds

20=Arm-Stay
21=Arm-Away
22=Disarm
23=Force Arm-Stay
24=Force Arm-Away
40=Enable Open Window by part
41=Enable Close Window by part

30=Auto bypass - Zone list
31=Auto unbypass - Zone list

42=Enable Access Window for Access group(s)

50=Off-normal Reminder

Actions 01-05
Enter the relay number and press ✳ to accept the entry. The "Time Window?" prompt appears.

```
01  RELAY # ?
                00
```

Actions 06-10
Enter the relay group number and press ✳ to accept the entry. The "Time Window?" prompt appears.

```
01  RELAY GRP # ?
                00
```

Actions 20-24 and 40-41
Enter the partition to which the action applies. Enter **0** to select all partitions. To deselect a partition number, enter it again. Press ✳ to accept the entry. The "Time Window?" prompt appears.

```
PART? 12345678
HIT 0-8    X X
```

Actions 30-31
Enter the number of the Zone List that contains the zones to be bypassed or unbypassed. Press ✳ to accept the entry. The "Time Window?" prompt appears.

```
01  ZONE LIST?
ENTER 1-8         1
```

Action 42 Enter the number of the group to which the time window will apply. Press ✳ to accept the entry. The "Time Window?" prompt appears.

```
GROUP? 12345678
HIT 0-8    X
```

Action 50
No further information is required, as this is a system-wide option.

```
01 Time Window?
00:00 00:00    01
```

Enter the number (**01-20**) of the time window during which this timed event is to occur. As you key in the number, the

time that has been stored for the window is displayed. Press the ✳ to continue.

| 01 Active time? |
| 0 |

Enter the activation code number (**1**, **2**, **3**, or **4**) listed below. As you key in the number, the activation time is displayed. The choices are:

1: Trigger at the start of the window
2: Trigger at the end of the window
3: Take effect only for the duration of the window
4: Trigger at both the start and the end of the window.

For example, to activate a coffee break buzzer, press ✳ when the choice you want is displayed.

| Days? MTWTFSSH |
| Hit 0-8 x   x |

The system will prompt for the days on which the event is to be activated. Press **0** to toggle all days on or off, or else press keys **1**-**8** to toggle on or off the letter x under the day (Monday = 1, Tuesday = 2, Holiday (H) = 8). Press ✳ to accept the entry.

The "TIMED EVENT #" prompt is displayed again.

Repeat the programming procedure for each timed event required for the installation.

When you have finished programming all timed events, enter **00** at the "TIMED EVENT #" prompt to exit the Timed Event menus.

Limitation of Access by Time Worksheet

Limitation of Access allows you to restrict user access to specific periods of time. The system allows 8 Access Schedules. A schedule consists of two time windows for each day of the week and two time windows for holidays. Typically, these two time windows represent an opening time window and a closing time window. If an Access Schedule has been programmed, all users who will follow that schedule are assigned to a particular Access Group (correspondingly numbered 1-8) when they are added to the system.

Each row in the worksheet represents one Access Schedule. For each row, enter the appropriate time window numbers for each day.

Acc.	Mon.		Tues.		Wed.		Thurs.		Fri.		Sat.		Sun.		Hol.	
Sch.	W1	W2	W1	W2	W1	W2	W1	W2	W1	W2	W1	W2	W1	W2	W1	W2
1																
2																
3																
4																
5																
6																
7																
8																

NOTE: Holidays for access groups are defined in the Holiday Definitions & Schedule Worksheet.

Access Control Schedules

To program Access Schedules, take the following steps:

Enter **[Installer Code] + [#] + 80** to enter Scheduling Menu Mode. Press **0** until the "Access Sched.?" prompt appears.

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| Access Sched. ?
1 Yes   0 = No   0 | Enter **1** to program access schedules.
If no limitations apply, enter **0**. |

| ACCESS SCHED # ?
01-08, 00 = Quit 01 | Enter the number of the access control schedule (**01**-**08**) you want to program. Press ✳ to accept the entry. |

When you are finished programming Access Schedules, enter **00** at the "ACCESS SCHED # ?" prompt to exit the access control menus and display the "Quit?" prompt.

Enter **0** at the "Quit?" prompt to return to the main menu choices and continue programming. Enter **1** to quit Scheduling Menu Mode.

| Quit?
1 = YES 0 = NO 0 |

| MON A1 Window 1?
00:00 00:00   00 | Enter a number from **01**-**20** for the first time window for the displayed day. As the number is keyed in, the actual time stored for that window is displayed. Press ✳ to continue. |

| MON A1 Window 2?
00:00 00:00   00 | Enter a number from **01**-**20** for the second time window for the displayed day. Again, the actual time stored for that window is displayed. Press ✳ to continue. |

| TUE A1 Window 1?
00:00 00:00   00 | Repeat these two steps for the other days of the week. When the last day of the week has been programmed, the holiday opening and closing windows may be entered. |

| Hol A1 Window 2?
00:00 00:00 00 | Enter a number for the first time window for holidays. As the number is keyed in, the actual time stored for that window is displayed. Press ✳ to continue. |

| Hol A1 Window 2?
00:00 00:00 00 | Enter a number for the second time window for holidays. As the number is keyed in, the actual time stored for the window is displayed. Press ✳ to continue. |

When you have finished programming access control schedules, enter **00** at the "ACCESS SCHED. # ?" prompt to exit this set of menus.

#81 Temporary Schedule Menu Mode

Each partition can be assigned a Temporary Schedule that overrides the regular open/close schedule and the Holiday schedule. This schedule takes effect as soon as it is programmed, and remains active for up to one week.

Partition/Windows		Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	**Disarm Window**							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
2	**Disarm Window**							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							

Partition/Windows		Mon	Tue	Wed	Thu	Fri	Sat	Sun
	Start Time HH:MM							
	Stop Time HH:MM							
3	**Disarm Window**							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
4	**Disarm Window**							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
5	**Disarm Window**							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
6	**Disarm Window**							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
7	**Disarm Window**							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							
8	**Disarm Window**							
	Start Time HH:MM							
	Stop Time HH:MM							
	Arm Window							
	Start Time HH:MM							
	Stop Time HH:MM							

Programming Temporary Schedules

Only users with an authority level of manager or higher can program temporary schedules. A temporary schedule only affects the partition from which it is entered.

Temporary schedules can be reused at later dates by pressing [#] to scroll to the "DAYS?" prompt (described below) and activating the appropriate days. This should be considered when you are defining daily time windows.

To program temporary schedules, enter **[User Code] + [#] + 81**.

```
Mon  DISARM WIND.
00:00AM  00:00AM
```

You will see this prompt asking for the starting and ending times for the disarm (opening) window. The cursor should be positioned on the first (tens of hours) digit of the start time for Monday's disarm window.

Enter the desired hour. Press ✳ to move to the minutes field.

Enter the minutes the same way. To set the AM/PM indicator, press any key in the **0-9** range while the cursor is under the A/P position.

Repeat these steps to set the stop time. For any item, you can press [#] if you do not want to make any changes.

Press ✳ to move to the arming window for Monday.

```
Mon   ARM WINDOW
00:00AM  00:00AM
```

This prompt asks for the starting and ending times for the arm (closing) window. The cursor will be positioned on the first digit (tens of hours) of the start time. Enter the desired hour.

Press ✳ to move to the minutes field. Enter the minutes in the same way.

To set the AM/PM indicator, press any key in the 0-9 range while the cursor is under the A/P position. Repeat these steps to set the stop time.

When you complete the settings for each day, the system will prompt you for settings for the next day.

For any setting, you can press [#] if no changes are desired.

```
Tue  DISARM WIND.
00:00AM  00:00AM
```

Repeat the procedure described above for each day of the week. When you have completed all of the days, the system will ask which days are to be activated.

```
Days?  MTWTFSS
 Hit 0-7  x  x
```

This prompt activates the temporary schedule and allows it to be customized for a particular week's needs. To select the days to be activated, enter the number that corresponds to each day the schedule will be activated, with Monday = 1, Tuesday = 2, etc. An "X" will appear under that day, indicating the schedule is active for that day. Entering a day's number again will deactivate that day. Press **0** to toggle all days on or off.

The temporary schedule will only be in effect for the days that have the letter "X" under them. As the week progresses, the selected days are reset to the inactive state.

When you have finished setting the days, press ✳ or [#] to exit the Temporary Schedule entry mode.

#83 User Scheduling Menu Mode

The system provides up to 20 "timers" that allow the end user to control output devices (4204 relay). These timers are comparable to the individual appliance timers that can be purchased at a department store. The output devices themselves are programmed into the system by the installer during #93 Menu Mode–Relay Programming. To control a device, the end user only needs to know the output device number and its alpha descriptor.

The installer can set certain relays to be "restricted" during # 93 Menu Mode-Relay Programming. These relays cannot be controlled by the end user. This prevents end users from controlling doors, pumps, etc.

To access this mode, the user enters **[Security Code] + [#] + 83**.

Output Timer # ? 01-20, 00=Quit 01	Enter the number (**01-20**) to be programmed for the output timer. Press ✳ to accept the entry. Enter **00** to exit and return to normal mode.

06 07:00P 11:45P
PORCH LITE   04
	If the timer number you entered has already been programmed, a summary screen appears. In the example at left:
	    06 = Timer #
	    04 = Output Device # affected by this timer
	    PORCH LITE = Descriptor for Output Device # 4
	    07:00PM = Start Time
	    11:45PM = Stop Time
	Press ✳ to continue.

06 ENTER OUTPUT# PORCH LITE 04	Enter the desired output number (**01-16**). As the number is entered, the descriptor changes to indicate which output device is being affected.

You can enter **00** as the output number to delete the timer. The system will display an output descriptor of "None."

06 ON TIME? 07:00 PM	Enter the ON time in **00:01** - **11:59** format. When the display shows the desired time, press ✳ to move to the AM/PM field. Press any number key to toggle the indicator between AM and PM. Enter **00:00** to skip.
06 OFF TIME? 11:45 PM	Enter the OFF time in **00:01** - **11:59** format. When the display shows the desired time, press ✳ to move to the AM/PM field. Press any number key to toggle the indicator between AM and PM. Enter **00:00** to skip.
06 DAYS? MTWTFSS HIT 0-7 x x	To select the days to be activated, enter **1-7** (Monday = 1). An "X" will appear under that day. Entering a day's number again will deactivate that day. Press **0** to toggle all days on or off. The outputs will be in effect for the days that have the letter "X" under them. As the week progresses, the selected days are reset to the inactive state, unless the permanent option is selected at the next screen prompt. When you are finished, press ✳ to continue.
06 Permanent? 0 = NO,1 = YES 0	The Permanent option puts this schedule in effect on a continuous basis. Enter **1** to turn the Permanent option on.

Enter **0** to put the schedule in effect for one week only.

Press ✳ to accept the entry. The system will quit User Scheduling mode and return to normal mode.

System Communication

· ·

In This Section

♦ *A Successful Transmission*

♦ *Reporting Formats*

♦ *Loading Communication Defaults*

· ·

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 the 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.

If an error occurs in the transmission and the receiver does not receive a "valid" message, the central station receiver does not transmit the kissoff frequency.

The panel will make a specified number of attempts to the primary telephone number, and a specified number of attempts to the secondary telephone number (if one has been programmed), to get a valid message through. The number of attempts that are made to each number is determined by the programming of field 3*21. 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 the panel supports, and the different formats that can be sent for each.

Format Time	Handshake	Transmits Data	Kissoff	Transmit
Low Speed 3+1 4+1 4+2	1400 Hz	1900 Hz (10PPS)	1400 Hz	Under 15 secs. (Standard report)
Sescoa/Radionics 3+1 4+1 4+2	2300 Hz	1800 Hz (20PPS)	2300 Hz	Under 10 secs. (Standard report)
Express 4+2	1400–2300 Hz	DTMF (10 cps)	1400 Hz	Under 3 secs.
High Speed	1400–2300 Hz	DTMF (10 cps)	1400 Hz	Under 5 secs.
Contact ID	1400–2300 Hz	DTMF (10 cps)	1400 Hz	Under 3 secs.

ADVISORY: ADEMCO's Contact ID reporting format is capable of reporting all 87 zones of information, as well as openings and closings for all 128 users, to central stations equipped with the ADEMCO 685 Receiver using software level 4.4 or higher. Software levels below 4.4 cannot support Contact ID reporting. In addition, the ADEMCO 685 Receiver must be level 4.7 or higher to fully support all new VISTA-100 report codes. If you need to update your 685 receiver, contact your distributor.

The following table 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 2-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 is 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 number, and 3-digit zone number, user number, or system status number.
ADEMCO High Speed	Comprised of 13 digits: a 4-digit account number, eight channels of zone information (1-8 or duress plus 9-15), and one status channel, which identifies the type of event being reported in the eight zone locations.

Report	3+1/4+1 Standard	3+1/4+1 Expanded	4+2 Low Speed or Express
Alarm	SSS(S) A	SSS(S) A AAA(A) Z	SSSS AZ
Trouble	SSS(S) T	SSS(S) T TTT(T) t	SSSS Tt
Bypass	SSS(S) B	SSS(S) B BBB(B) b	SSSS Bb
AC Loss	SSS(S) E	SSS(S) E EEE(E) A_C	SSSS EA_C
Low Batt	SSS(S) L	SSS(S) L LLL(L) L_B	SSSS LL_B
Open	SSS(S) O	SSS(S) O OOO(O) U	SSSS OU
Close	SSS(S) C	SSS(S) C CCC(C) U	SSSS CU
Test	SSS(S) G	SSS(S) G GGG(G)g	SSSS Gg
Restore Alarm	SSS(S) R	SSS(S) R RRR(R) Z	SSSS RZ
AC Restore	SSS(S) R_A	SSS(S) R_A $R_A R_A R_A (R_A) A_c$	$SSSSR_A A_c$
LoBat Res.	SSS(S) R_L	SSS(S) R_L $R_L R_L R_L (R_L) L_B$	SSSS $R_L L_B$
Trouble Res.	SSS(S) R_T	SSS(S) R_T $R_T R_T R_T (R_T) t$	SSSS $R_T t$
Bypass Res.	SSS(S) R_B	SSS(S) R_B $R_B R_B R_B (R_B) b$	SSSS $R_B b$

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: [T] + [#], or [B] = 99; [3] + [#], or [C] = 96; – [1] + [T], 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 event

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 display the user ID 1-9, A-F if Open/Close reporting is enabled.

The status channel might display one of the following conditions:

1 = DURESS (for Duress and 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:

A 1 in the status channel changes the meaning of Channels 1-8. When a 1 appears in the status channel, the first digit of the zone information (Channel 1) is reserved for Duress. The second through eighth digits of the zone information represent Channels 9-15, respectively.

If there is a 1 in the status channel, and:

1 in the first location (Channel 1) = 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 on those channels

The following examples are typical of a High-Speed report:

1234 5115 5555 7 (Acct #1234, with alarms on channels 2 and 3)

1234 5155 1555 1 (Acct #1234, with alarms on channels 9 and 12)

LIMITATIONS

• ADEMCO High Speed reporting provides 15 zone channels. If more than 15 zones are being used, they will have to share channels.

• With ADEMCO High Speed reporting, channels 9-15 cannot report troubles or bypasses. Use these channels for zones that will not experience these conditions.

• Only user numbers 1-15 can be reported uniquely with Open/Close reports in ADEMCO High Speed reporting.

Loading Communication Defaults

To expedite installation of the system, you can load one of 4 communication defaults: Low Speed, ADEMCO Express, ADEMCO High Speed and ADEMCO Contact ID.

You can load communications defaults at any time. **If no other programming has been done,** you should default the panel first (*97). If other programming has already been done, you do not need to default the panel.

To load communication defaults, do the following:
Enter Program Mode by entering **[Installer Code] + 8 0 0 0**. Then press ***94** and then enter the field number for the default you want to set:

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	ADEMCO Contact ID communication defaults

The communication defaults load the following specifications:

Low Speed (*94*80)
• Selects low speed and standard format, with no checksum, for both phone numbers.
• Assigns the following report codes:
   03 for zones 003-047
   01 for zones 001, 002, and 048-055 (fire zones)
   02 for zones 062 and 063 (panic transmitter); and for 995, 996, and 999 (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 001-087, RF receiver, and keypad panics are sent as their respective zone ID numbers. Duress is sent as "DD." Alarm restores are sent as "E" + second 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 reporting.

ADEMCO Contact ID (*94*83)
• Selects Contact ID format for both phone numbers.
• Enables reporting for all zones.
• Enables all zone type restores.
• Refer to the Table of Contact ID Event Codes below.

TABLE OF CONTACT ID EVENT CODES

Code	Definition	Code	Definition
110	Fire Alarm	401	O/C by User
111	Smoke Alarm*	403	Power-Up Armed/Auto-Arm
113	Water Flow Alarm	406	Cancel by User
121	Duress	407	Remote Arm/Disarm (Download)
122	Silent Panic	408	Quick Arm
123	Audible Panic	409	Keyswitch O/C
131	Perimeter Burglary	411	Call-back Requested
132	Interior Burglary	441	Armed-Stay
133	24-Hour Burglary	451	Early Open/Close
134	Entry/Exit Burglary	452	Late Open/Close
135	Day/Night Burglary	453	Fail to Open
142	Polling Loop Short Alarm	454	Fail to Close
150	24-Hour Auxiliary	455	Auto-Arm Fail
200	Fire Supervisory	457	Exit Error by User
301	AC Loss	459	Recent Close
302	Low System Battery	521	Bell 1 Bypass
305	System Reset	522	Bell 2 Bypass
306	Program Tamper	524	Auxiliary Relay Bypass
309	Battery Test Fail	551	Main/Backup Dialer Bypass
310	Ground Fault	570	Bypass
321	Bell 1 Trouble	602	Communicator Test
322	Bell 2 Trouble	604	Fire Test
332	Polling Loop Short-Trouble	607	Burglary Walk Test
333	Expansion Module Failure	608	Off-Normal
351	Main Dialer Trouble	611	Fire Walk Test - Point Tested
352	Backup Dialer Trouble	612	Fire Walk Test - Point Not Tested
373	Fire Loop Trouble	621	Event Log Reset
374	Exit Error by Zone	622	Event Log 50% Full
380	Trouble (Global)	623	Event Log 90% Full
381	Loss of Supervision (RF)	624	Event Log Overflow
382	Loss of RPM Supervision	625	Time/Date Reset
383	RPM Sensor Tamper	631	Exception Schedule Change
384	RF Transmitter Low Battery	632	Access Schedule Change

*This report is transmitted whenever an alarm is detected on a zone programmed for Fire Alarm w/Verification.

COMMUNICATION DEFAULTS for LOW SPEED FORMAT (*94*80)

*45	PRIMARY FORMAT	`0` Ademco Low Speed	
*46	LOW SPEED FORMAT (Prim.)	`0` Ademco Low Speed	
*47	SECONDARY FORMAT	`0` Ademco Low Speed	
*48	LOW SPEED FORMAT (Sec.)	`0` Ademco Low Speed	
*49	CHECKSUM VERIFICATION	`0` `0`	
	No checksum	Primary Secondary	
*50	SESCOA/RADIONICS SEL.	`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 SECONDARY

`0`	`0`	`0`	`0`	`0`	`0`	standard
Alarm	Rstr	Bypass	Trbl	Opn/Cls	Low Bat	

COMMUNICATION DEFAULTS for ADEMCO EXPRESS FORMAT (*94*81)

*45	PRIMARY FORMAT	`3` Ademco Express	
*46	LOW SPEED FORMAT (Prim.)	`0`	
*47	SECONDARY FORMAT	`3` Ademco Express	
*48	LOW SPEED FORMAT (Sec.)	`0`	
*49	CHECKSUM VERIFICATION	`0` `0`	
	No checksum	Primary Secondary	
*50	SESCOA/RADIONICS SEL.	`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 SECONDARY

`0`	`0`	`0`	`0`	`0`	`0`	standard
Alarm	Rstr	Bypass	Trbl	Opn/Cls	Low Bat	

COMMUNICATION DEFAULTS for ADEMCO HIGH SPEED FORMAT (*94*82)

*45	PRIMARY FORMAT	`2` Ademco High Speed	
*46	LOW SPEED FORMAT (Prim.)	`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 SEL.	`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 SECONDARY

`0`	`0`	`0`	`0`	`0`	`0`	standard
Alarm	Rstr	Bypass	Trbl	Opn/Cls	Low Bat	

COMMUNICATION DEFAULTS for ADEMCO CONTACT ID FORMAT (*94*83)

*45	PRIMARY FORMAT	`1` Ademco Contact ID	
*46	LOW SPEED FORMAT (Prim.)	`0`	
*47	SECONDARY FORMAT	`1` Ademco Contact ID	
*48	LOW SPEED FORMAT (Sec.)	`0`	
*49	CHECKSUM VERIFICATION	`0` `0`	
	No checksum	Primary Secondary	
*50	SESCOA/RADIONICS SEL.	`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 SECONDARY

`0`	`0`	`0`	`0`	`0`	`0`	standard
Alarm	Rstr	Bypass	Trbl	Opn/Cls	Low Bat	

COMMUNICATION DEFAULTS FOR ZONES

Zone #	Low Speed 1st 2nd	Express 1st 2nd	High Speed 1st 2nd	Contact ID 1st 2nd
001	01 00	10 01	01 00	01 00
002	01 00	10 02	01 00	02 00
003	03 00	10 03	02 00	03 00
004	03 00	10 04	02 00	04 00
005	03 00	10 05	02 00	05 00
006	03 00	10 06	02 00	06 00
007	03 00	10 07	02 00	07 00
008	03 00	10 08	02 00	08 00
009	03 00	10 09	03 00	09 00
010	03 00	01 10	03 00	10 00
011	03 00	01 01	03 00	11 00
012	03 00	01 02	03 00	12 00
013	03 00	01 03	03 00	13 00
014	03 00	01 04	03 00	14 00
015	03 00	01 05	03 00	15 00
016	03 00	01 06	03 00	01 00
017	03 00	01 07	04 00	02 00
018	03 00	01 08	04 00	03 00
019	03 00	01 09	04 00	04 00
020	03 00	02 10	04 00	05 00
021	03 00	02 01	04 00	06 00
022	03 00	02 02	04 00	07 00
023	03 00	02 03	04 00	08 00
024	03 00	02 04	04 00	09 00
025	03 00	02 05	04 00	10 00
026	03 00	02 06	04 00	11 00
027	03 00	02 07	04 00	12 00
028	03 00	02 08	04 00	13 00
029	03 00	02 09	04 00	14 00
030	03 00	03 10	04 00	15 00
031	03 00	03 01	04 00	01 00
032	03 00	03 02	05 00	02 00
033	03 00	03 03	05 00	03 00
034	03 00	03 04	05 00	04 00
035	03 00	03 05	05 00	05 00
036	03 00	03 06	05 00	06 00
037	03 00	03 07	05 00	07 00
038	03 00	03 08	05 00	08 00
039	03 00	03 09	05 00	09 00
040	03 00	04 10	05 00	10 00
041	03 00	04 01	05 00	11 00
042	03 00	04 02	05 00	12 00
043	03 00	04 03	05 00	13 00
044	03 00	04 04	05 00	14 00
045	03 00	04 05	05 00	15 00
046	03 00	04 06	05 00	01 00
047	03 00	04 07	05 00	02 00
048	01 00	04 08	01 00	03 00
049	01 00	04 09	01 00	04 00
050	01 00	05 10	01 00	05 00

COMMUNICATION DEFAULTS FOR ZONES (cont'd)

Zone #	Low Speed 1st	2nd	Express 1st	2nd	High Speed 1st	2nd	Contact ID 1st	2nd
051	01	00	05	01	01	00	06	00
052	01	00	05	02	01	00	07	00
053	01	00	05	03	01	00	08	00
054	01	00	05	04	01	00	09	00
055	01	00	05	05	01	00	10	00
056	03	00	05	06	06	00	11	00
057	03	00	05	07	06	00	12	00
058	03	00	05	08	06	00	13	00
059	03	00	05	09	06	00	14	00
060	03	00	06	10	06	00	15	00
061	03	00	06	01	06	00	01	00
062	02	00	06	02	09	00	02	00
063	02	00	06	03	09	00	03	00
064	03	00	06	04	06	00	04	00
065	03	00	06	05	14	00	05	00
066	03	00	06	06	14	00	06	00
067	03	00	06	07	14	00	07	00
068	03	00	06	08	14	00	08	00
069	03	00	06	09	14	00	09	00
070	03	00	07	10	14	00	10	00
071	03	00	07	01	14	00	11	00
072	03	00	07	02	14	00	12	00
073	03	00	07	03	15	00	13	00
074	03	00	07	04	15	00	14	00
075	03	00	07	05	15	00	15	00
076	03	00	07	06	15	00	01	00
077	03	00	07	07	15	00	02	00
078	03	00	07	08	15	00	03	00
079	03	00	07	09	15	00	04	00
080	03	00	08	10	15	00	05	00
081	03	00	08	01	13	00	06	00
082	03	00	08	02	13	00	07	00
083	03	00	08	03	13	00	08	00
084	03	00	08	04	13	00	09	00
085	03	00	08	05	13	00	10	00
086	03	00	08	06	13	00	11	00
087	07	00	08	07	13	00	12	00
601	00	00	00	00	00	00	00	00
602	00	00	00	00	00	00	00	00
603	00	00	00	00	00	00	00	00
604	00	00	00	00	00	00	00	00
605	00	00	00	00	00	00	00	00
606	00	00	00	00	00	00	00	00
607	00	00	00	00	00	00	00	00
608	00	00	00	00	00	00	00	00
609	00	00	00	00	00	00	00	00
610	00	00	00	00	00	00	00	00
611	00	00	00	00	00	00	00	00
612	00	00	00	00	00	00	00	00
613	00	00	00	00	00	00	00	00

COMMUNICATION DEFAULTS FOR ZONES (cont'd)

Zone #	Low Speed 1st	2nd	Express 1st	2nd	High Speed 1st	2nd	Contact ID 1st	2nd
614	00	00	00	00	00	00	00	00
615	00	00	00	00	00	00	00	00
616	00	00	00	00	00	00	00	00
800	00	00	00	00	00	00	00	00
801	00	00	00	00	00	00	00	00
802	00	00	00	00	00	00	00	00
803	00	00	00	00	00	00	00	00
804	00	00	00	00	00	00	00	00
805	00	00	00	00	00	00	00	00
806	00	00	00	00	00	00	00	00
807	00	00	00	00	00	00	00	00
808	00	00	00	00	00	00	00	00
809	00	00	00	00	00	00	00	00
810	00	00	00	00	00	00	00	00
811	00	00	00	00	00	00	00	00
812	00	00	00	00	00	00	00	00
813	00	00	00	00	00	00	00	00
814	00	00	00	00	00	00	00	00
815	00	00	00	00	00	00	00	00
816	00	00	00	00	00	00	00	00
817	00	00	00	00	00	00	00	00
818	00	00	00	00	00	00	00	00
819	00	00	00	00	00	00	00	00
820	00	00	00	00	00	00	00	00
821	00	00	00	00	00	00	00	00
822	00	00	00	00	00	00	00	00
823	00	00	00	00	00	00	00	00
824	00	00	00	00	00	00	00	00
825	00	00	00	00	00	00	00	00
826	00	00	00	00	00	00	00	00
827	00	00	00	00	00	00	00	00
828	00	00	00	00	00	00	00	00
829	00	00	00	00	00	00	00	00
830	00	00	00	00	00	00	00	00
831	00	00	00	00	00	00	00	00
970	00	00	00	00	00	00	00	00
971	03	00	07	01	07	00	02	00
972	03	00	07	02	07	00	03	00
973	03	00	07	03	07	00	04	00
974	03	00	07	04	07	00	05	00
975	00	00	00	00	00	00	00	00
988	00	00	00	00	00	00	00	00
990	00	00	00	00	00	00	00	00
995	00	00	00	00	00	00	00	00
996	00	00	00	00	00	00	00	00
997	07	00	09	07	07	00	06	00
999	02	00	09	09	12	00	60	00
ALARM RST.	09	00	14	00	01	00	01	00
TROUBLE	05	00	15	00	01	00	01	00
TRBLE. RST	09	00	14	00	01	00	01	00

COMMUNICATION DEFAULTS FOR ZONES (cont'd)

Zone #	Low Speed 1st 2nd	Express 1st 2nd	High Speed 1st 2nd	Contact ID 1st 2nd
BYPASS	00 00	00 00	00 00	00 00
BYPASS RST.	00 00	00 00	00 00	00 00
DURESS	02 00	13 13	01 00	11 00

To program report codes, see "Report Code Programming" in *Section 22: #93 Menu Mode Programming.*

Downloading Primer
(Remote Downloading is not a UL Listed feature)

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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 remotely over normal telephone lines. All functions that you can perform from the keypad can be done remotely, using ADEMCO's V-LINK® downloading software. To communicate with the control panel, you will need:

1. An IBM PC-compatible 286, 386, or 486 computer with at least 1MB RAM, a hard disk with 12MB 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 they are claimed to be 100% compatible.)

   OR

   A 4100SM interface module to direct-wire the control panel to your computer at the site.

Internal modems must have a 4-position DIP switch. Modems with 6-position DIP switches will not work with V-LINK.

3. V-LINK® downloading software from ADEMCO. This software is available on both 3-1/2" and 5-1/4" diskettes, and includes a complete User's Manual.

Getting On-Line with a Control Panel

At the protected premises, the control panel must be connected to the existing telephone line (refer to *Section 15: Dialer Outputs*). No programming of the panel is required before downloading to an initial installation.

To download, take the following steps:

1. Install the V-LINK software, following the instructions provided with it.

2. Enter **[Installer code]** + **[#]** + **5**. The panel temporarily enables a ring count of 5 and sets the Download Callback option to 1 (callback not required).

3. Call the panel using the downloader software set to First Communication Mode.

4. The downloader will establish a session with no call-back. You can then download the panel information.

In order to access, control, or program the alarm panel remotely, a "link" must be established between the computer and the control panel. The link is established by this sequence of events:

a. The computer dials the phone number of the control panel. (The phone number for each customer is in 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 call-back to the control panel, unless call-back is not required.

d. The panel acknowledges the request and hangs up. During the next few seconds, the control processes the request, making sure certain encrypted information received from the computer matches information stored in its own memory.

e. Upon a successful match, the control panel takes control of the phone line and calls the computer back, unless call-back is not required.

f. The computer answers, usually by the second ring, and executes a "handshake" with the control panel.

g. The control panel 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 uploading or downloading sessions. If you are on-line, but not actively uploading or downloading, all alarms will report immediately. All other reports will be delayed until you complete the session.
- • The keypads remain active when you are on-line with a control panel, but are inactive during actual uploading or downloading sessions.

On-Line Control Functions

You can perform the following functions 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.
- • Shut down communication (dialer) functions (for example, for nonpayment of monitoring fees in a company-owned system).
- • Shut down all security system functions (for example, for nonpayment 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, 224 event log, list of zones currently in alarm, list of zones currently in trouble, list of fire test points, and ECP equipment list.

- Set the real-time clock.

Access Security

Access to the control panel from a remote location is protected against compromise by 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 panel 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 the control panel is encrypted to reduce the possibility of anyone tapping the line and corrupting data. Additionally, all account files are encrypted to prevent them from being opened on another installer's V-LINK® downloading software package.

4. Operator Access Levels: Up to 15 operators can have access to the V-LINK, each having their own log-on code. However, you can assign each operator one of 3 levels of access in both File and Command functions:

   FILE ACCESS:

   Read Only: The operator is able to look only at the database, and cannot change any information or see the customer's access codes.

   Part Read/Write: The operator is able to look at and change all information except the customer's access codes.

   Full Read/Write: The operator is able to look at and change all information in the database.

   CONTROL/COMMUNICATION ACCESS:

   Read Only: The operator is able only to upload and arm the system, and cannot disarm, bypass, or change any information.

   Part Read/Write: The operator is able to arm, bypass, upload, and download, but cannot shut down the system.

   Full Read/Write: The operator is able to perform all control and status commands, and can shut down all or part of the system.

   NOTES:

- Each time the control panel is accessed successfully, a Callback Requested report is sent to central station, if it is programmed to do so.

- During a download session, the keypad displays "MODEM COMM."

- Whenever a download or a save is completed, an automatic time stamp is done, indicating the date and time of the last download (or save) and the operator ID number.

- If a printer is connected to your computer, you can print account information. Refer to your computer owner's manual or contact your dealer for printer recommendations.

Connecting a 4100SM Module for Direct-Wire Downloading

The control panel can be downloaded without using a modem or telephone line by using V-LINK® 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 control panel and the 4100SM are different from those shown in the 4100SM Installation Instructions. See the diagram below for correct connections. In addition, where the green wire is referred to in step 2 of the "In Case of Difficulty" section of the 4100SM Instructions, **substitute the violet wire.**

Connector J2 on the main PC board (see the *Summary of Connections* diagram on the inside back cover of this manual) is intended to be connected to either a local serial printer (see "Event Log Printer Connections" in *Section 16: Event Log Options*) or a computer. Make connections to a computer as shown below. **Note that the violet wire connection for a computer differs from that used when connecting a serial printer.**
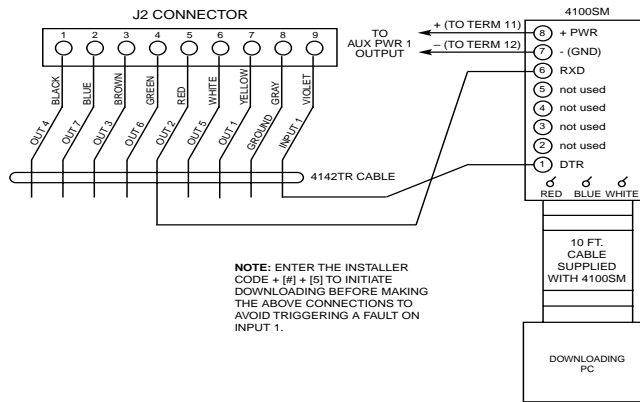
Figure 25-1. Direct-Wire Downloading Connections

Setting The Real-Time Clock

. . . .

In This Section

♦ *General Information*

♦ *Setting the Time and Date*

. . . .

General Information

The VISTA-100 provides a real-time clock, which you must set in order for the system's event log to keep track of events by time and date. It must also be set in order to execute scheduling programs (time-driven events).

Use a 6139/6139R alpha keypad to set the real-time clock, or set the clock via the V-LINK downloader software. Only users with installer or master authority level can set the real-time clock.

Setting the Time and Date

To set the time and date, enter **[Installer or Master Code] + [#] + 63**. You will see a display similar to this one:

```
TIME/DATE    ––    THU
12:01 AM           01/01/90
```

Make the time and date entries by entering the appropriate hour, minute, month, day, and year. The day of the week is automatically calculated based on the date you entered. To enter the time and date, follow these steps:

1. Enter the hour, then press ✳ . The cursor moves to the minutes field.

2. Enter the minutes. Press ✳ .

3. To toggle between AM and PM, press any key 0-9. Press ✳ . The cursor moves to the month field.

4. Enter the month. Enter a leading zero if the number of the month has only one digit.

5. Press ✳ . The cursor moves to the date field.

6. Enter the date. Press ✳ . The cursor moves to the year field.

7. Enter the year.

Exit Clock mode by pressing ✳ .

User Access Codes

In This Section

General Information

This system allows you to allocate a total of 128 security access codes, each identified by a unique user ID number. **Regardless of the number of partitions each code has access to, it occupies only one user slot in the system. Even if a particular code is not used in all partitions, that user ID number cannot be used again.**

You can use partition-specific program field *29 to program the Quick Arm feature. This feature allows the user to press [#] instead of entering the security code when arming the system. The user must always enter the security code to disarm the system.

> You must program User #002 for the Quick Arm feature to function.

User Codes and Levels of Authority

You can assign each user of the system a level of authority, and the user 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.

Level	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)

- Program this level in field *00 (default = 5-1-4-0). Select installer Open/Close reporting in field *39.

- A user with this level of authority can perform all system functions (arm, disarm, bypass, etc.), but **cannot disarm** the system if it was armed by another code (or by Quick Arm).

- A user with this level of authority can add, delete, or change all other authority level codes, and can select Open or Close reports for any user.

- This is the only level that can be used to enter the Program Mode, but the user cannot enter even using this level if he exited Program Mode previously by using *98. (The only way to access Program Mode if the user exited Program Mode previously by using *98 is to power down the system, power up again, and then press both ✳ and [#] at the same time within 30 seconds of power-up.)

- You 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

- A user with this level of authority can perform all normal system functions.

- This authority level can be used to assign up to 126 lower-level codes, which can be used by other users of the system.

- A user with this level of authority cannot assign anybody a level of 0 or 1.

- A user with this level of authority may change his own code.

- A user with this level of authority can add, delete, or change manager or operator codes. Each user's code can be individually eliminated or changed at any time.

- Open/Close reporting of users added by someone with this level of authority is the **same** as the Open/Close reporting of the master or manager adding the new user.

Level 2: Manager Codes

- A user with this level of authority can perform all system functions (such as arm, disarm, bypass, etc.) programmed by a person with master-level authority.

- A user with this level of authority can add, delete, or change other users of the system below this level. (A manager cannot assign any other user a level of 0, 1, or 2.)

- A user with this level of authority can change his own code.

- Open/Close reporting of users added by someone with this level of authority will be same as his own Open/Close reporting (enabled or disabled as assigned by an installer or master).

Levels 3-5: Operator Codes

- A user with this level of authority can arm and disarm the system to the authority assigned, but cannot add or modify any user code.

- A user with this level of authority can operate a partition with one of the three operator authority levels A through C listed below.

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 the Babysitter code) cannot disarm the system **unless** the system was armed with that code. This code is usually assigned to persons who need to arm and disarm the system only at specific times (for example, a babysitter needs to control the system only when babysitting).

Level 6: Duress Codes

- The Duress code 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).

- This code is assigned on a partition-by-partition basis, and can be any code or codes desired.

- A Duress code 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 992 (Duress) must be programmed in partition-specific field *85 to enable Duress reporting.

You activate the Duress report triggering logic on the fifth key depression (such as OFF), not the fourth key depression (the last digit of the code). You cannot trigger a Duress report if the fifth key is an asterisk [*], such as when you perform a GOTO or view 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 cannot delete or change the user code of the SAME or HIGHER authority than that to which he is assigned.
- A user (levels 0, 1, and 2 only) can only ADD users to a LOWER authority level.
- A user can assign other users access only to those partitions to which he himself has access.
- A user can only be DELETED or CHANGED from within the partition in which he was created.
- User numbers must be entered as 3-digit entries. Single-digit user numbers must always be preceded by a "00." Verify that the user understands this requirement. Temporary codes are entered as 4-digit numbers.

Open/Close Reporting Note: When adding a user, the system will prompt for Open/Close reporting capability only if the installer is adding the user. When a master or manager adds a new user, the new user's Open/Close reporting capability will be the same as that of the master or manager adding the user. If Open/Close reports need 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 002 is enabled for Open/Close reporting, and that Quick Arm reports as User 000. In order for Quick Arm reports to be sent for all partitions, User 002 must have authority and Open/Close must be enabled for all partitions. If you do not want a code with access to all partitions, User 002 should be assigned authority level 5 in all partitions, and the code should be kept secret. A person with authority level 5 cannot disarm the system unless he armed it.

ADEMCO Contact ID format is capable of reporting Users 001-128 uniquely. If any other report format is used, only user numbers 001 - 015 can uniquely report to the central station. Users 016-128 will report as User 015.

Multiple Partition Access Examples

Each user is programmed for a primary (home) partition. You can also give a user the capability to operate one or more additional partitions. Within each partition, you can program each user to have a different level of authority. For example, User 3, the Vice President 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 can arm, disarm, bypass, add users or modify users in Partition 1.

He must also 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 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	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
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 in use in a partition, the system will automatically assign an unused user number to a new user. Also notice that no access is allowed for this user into Partitions 3 through 8. Attempts to access these partitions are denied automatically.

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.

To add a Master, Manager, or Operator Code, take the following steps:

1. Enter [**Installer Code**†] + **8** + [**new user # (002-128)**] + [**new user's code**].

†Rather than an Installer Code, you could enter a Master or Manager Code, as long as it has a higher level of authority than the code you want to add.

2. The keypad will prompt you for the authority level for the new user.

User Number = 003	Enter the level number as follows:
Enter Auth. Level	1 = Master (arm, disarm, bypass, add, or modify lower-level users)

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 the system is armed with this code)
6 = Duress (arm, disarm, trigger silent panic alarm)
The keypad will then prompt for the Open/Close reporting option for this user.

Open/Close Rep.?
0 = NO , 1 = YES

Press **0** (NO) or **1** (YES), depending on whether arming/disarming by this user will trigger Opening and Closing reports. This prompt appears only if you are using the Installer Code to add a user.

Access Group?
Enter 0-8

If access schedules have been programmed, this prompt appears. Enter the user's access group number (**1-8**) if you want this user to have limited access to the system. Enter **0** if you want this user to have no access group assigned.

RF Button?
0=NO , 1=YES

If you have enabled a 5800 Series button transmitter for arming/disarming functions, and you have not assigned it to a user, this prompt will appear. Press **0** (NO) or **1** (YES).

Enter Button ZN #
(001-087)

If you responded "YES" at the "RF Button?" prompt, 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 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 you press 0, the program exits this mode. If you press 1, the keypad prompts you for the Global Arm option for this user.

Global Arm?
0 = NO , 1 = YES

Press **0** (NO) or **1** (YES), depending on whether you want this user to be allowed to arm more than one partition via Global Arm prompts (described in *Section 28: Keypad Functions*). The keypad prompts you for the user's access to the next partition.

Part. 2 – SHOP?
0 = NO , 1 = YES

Press **0** (NO) or **1** (YES), depending on whether you want this user to have access to the displayed partition number. If you press 0, the keypad displays this prompt for the next partition number in sequence.

If you press 1, the keypad prompts you for the following:

• User's authority level in the displayed partition (see the description of the 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 display the user number, authority level, open/close, and

global arm options that you programmed for each partition to which you granted the user access. For example:

```
Part. 1 A0 ✳ WHSE
User 003  Auth=3G.
```

Note that 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 that Open/Close reporting is enabled for this user in the displayed partition. The asterisk (✳) indicates the partition from which the user can be changed or deleted.

To CHANGE a Master, Manager, or Operator Code

To change a Master, Manager, or Operator Code, take the following steps:

Enter **[Installer Code*] + 8 + [User number (002-128)] + [new user's code]**.

†Rather than an Installer Code, you could enter a Master or Manager Code, as long as it has a higher level of authority than the code you want to add.

```
User Number = 003
NEW USER?
```

The system detects that the user number is already assigned and will prompt you to verify if this is a new user. 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 Code" paragraph.

To Delete a Master, Manager, or Operator Code

Enter **[your code*] + 8 + [User number (02-75)] + [your code] again.**

*Rather than your Installer Code, you could enter a Master or Manager Code, as long as it has a higher level of authority than the code you want to add.

```
OK TO DELETE 003?
0=NO          1=YES
```

The system will prompt you to confirm that you want to delete this user. Press **0** (NO) or **1** (YES).

If you press 1, the 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 code can be deleted only by a user with a higher authority level. A user cannot delete his own user code.

✔ A user code can be deleted only from the partition through which it was entered. If you are trying to delete it from another partition, the keypad will display "USER [XXX] NOT DELETED."

To EXIT the User Edit Mode

To exit User Edit Mode, take ONE of the following steps:

- Press ✳ .

- Press [#].

- Do not press any key for a period of 10 seconds.

Keypad Functions

In This Section

General Information

The keypad allows the user to arm and disarm the system, and to perform other system functions, such as bypassing zones, viewing messages from the central station, and displaying zone descriptors. Zone and system conditions (alarm, trouble, and bypass) 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 the keypad and the 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, 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 table summarizes system commands. For detailed information concerning system functions, refer to the User's Manual.

SYSTEM COMMANDS

FUNCTION	ACTION
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 without entry delay).
Disarming	Enter code + 1 (OFF).
Bypassing Zones	Enter code + 6 (BYPASS) + 3-digit zone number. To automatically bypass all faulted zones, use the "Quick Bypass" method: Enter code + BYPASS + [#]. **Fire and System zones can be bypassed only by those users enabled in field 3*85.**
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), you can press [#] instead of entering the security code for any of the arming procedures (Away, Stay, Instant, Maximum, etc.).

You must program User 002 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 Global Arming is enabled for the user, the keypad will display the following prompt:

```
ARM ALL?
0 = NO , 1 = YES
```

If you enter **0** (NO), the keypad prompts for arming each partition individually. If you enter **1** (YES), the system attempts to arm all partitions to which this user has access. 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.

NOTES:

- When you are using the Global Arm feature, if there are faults in any of the partitions you selected, the system will enter a summary mode in which the faulted zones of all of the selected partitions are displayed. These faults must be corrected or bypassed (enter [Code] + BYPASS + [#] to attempt to bypass the faults in all of the selected partitions). This summary mode will end in approximately 120 seconds if you do not press any keys.

- If, when you are disarming the system using a Global Disarm, any of the selected partitions has a condition that would cause the keypad to beep (such as alarm memory or a trouble condition), the keypad will beep and enter a summary mode in which the alarm memory or trouble conditions of all of the selected partitions will be displayed. This mode will continue until either approximately 120 seconds elapse or a second disarm occurs that clears the beeping.

Access Control

If you programmed the system for access control, one relay may be used for access control in each partition. Program the relay in data field 1*76. To activate this relay, the user enters his user code + **0**. The relay will pulse for 2 seconds.

Delaying Closing Time

If you program Open/Close schedules, users can manually delay the closing time by extending the closing window by 1 or 2 hours. This is useful if a user must stay on the premises later than usual. The user must have an authority level of manager or higher to use this feature.

To extend the closing window, enter **[User Code] + [#] + 82**.

Closing Delay?
Hit 0-2 Hours

Enter the number of hours, **1** or **2**, by which you want to extend the end of the closing window. Note that the delay is from the scheduled closing time, not from the current time. Press ✳ to accept the entry and exit this mode. Press [#] to exit this mode without changes.

The system will send an "Access Schedule Change" message to the central station when the closing window is extended (if you programmed it in fields 2*13 and 2*14).

An extension of the closing window cannot be reduced once it is set. However, a 1-hour delay can be increased to 2 hours. This is to prevent the user from deleting the delay after the normal window expires, thereby missing the end of the window.

Partition "GOTO" Commands

You assign each keypad a default partition for display purposes so it 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 0-8**). 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 keypad will display the partitions for which a user is authorized, the user number, and his authority level for all partitions authorized. Enter **[Code]** + ✳ + ✳ . The user's capabilities in each authorized partition will typically be displayed as shown below:

<table>
<tr><td>Part. 1 A0T WHSE
User 01 Auth.=1G.</td></tr>
</table>

The user's Open/Close report capability is shown by the period following the authority level. If Open/Close is not enabled for a user, the period will not appear.

Viewing Zone Descriptors

Alpha keypads can display all programmed descriptors, which is useful to you when you are 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.***

To view zone descriptors, press and hold the READY key until the built-in instructions for that key appear; then release the key. The keypad will display the zone descriptors 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.

When all descriptors have been displayed, the control will exit display mode. To exit display mode before all descriptors have been displayed, enter the security code and press the OFF key.

Viewing Downloaded Messages

Users can receive a message from you (their installation company) displayed on an alpha keypad. When you send a message, 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 the message.

Using the Built-in User's Manual

An abbreviated User's Manual is stored in the system's memory, and can be useful when the printed User's Manual is not accessible. Display the Built-in User's Guide by 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 you can program to manually initiate alarms and send a report to the central station. You can program each key pair individually 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	995
[#] 3	996
✳ [#]	999

For alpha keypads, these panic keys can also be programmed with an alpha descriptor.

For the panic keys to be of practical value, the system must be connected to a central station.

Speed Key "D" (Macros)

The "D" key can be used to activate a string of up to 16 keystrokes. These keystrokes are known as a macro, and are stored in the system's memory. Each partition can have its own macro. Typical Speed Key functions include:

- Arming sequences that involve bypassing certain zones before arming.
- Seldom-used but repeatable sequences.
- Relay activation sequences.

To program a macro, enter your user code + [#] + [D]. The following prompt appears:

```
ENTER SPEED KEY
"D"
[                ]
```

(If there is an existing sequence, it is shown in the bracketed area.)

Enter up to 16 keystrokes. A speed key sequence can include a number of commands. Press the "D" key to separate different commands. For example, you might want to perform the following sequence.

Desired function	Keystrokes
GOTO partition 2	Enter *2
Bypass zones 10 & 11	Press bypass 6, then the zone numbers 010 & 011
Arm in MAXIMUM mode	Press MAXIMUM 4 key
Return to Partition 1	Enter *1

To program that speed key sequence, type the following:

*2 D 6010011 D 4 D *1 D D

Note that the "D" key is pressed after each command. Press "D" twice to complete the entry and exit.

To execute a speed key sequence, press the "D" key. The following prompt appears:

```
ENTER USER CODE
****
```

Enter your user code. The programmed speed key sequence will begin automatically.

> When defining speed key sequences, do not use the [#] key to represent Quick Arming. The system uses the code entered in response to the prompt to initiate commands in a speed key sequence, so the Quick Arm key is unnecessary. The system interprets the use of the [#] key in a speed key sequence as its designated function only (e.g., #2 is not interpreted as "Arm-Away," but rather as "Enter House ID Sniffer Mode").

Manual Relay Activation Mode (#70 Mode)

The VISTA-100 allows users to activate relays manually using either the keypad or a telephone keypad (if the VIP Module is used). The user will be prompted either by the keypad alpha display or by the telephone voice module.

To activate relays from a keypad, enter the 4-digit security code + [#] + **70.**

To activate relays using a telephone and VIP module, dial the 2-digit phone access code. When the system acknowledges the access, enter the 4-digit security code + [#] + **70**.

The following keypad prompts or phone voice responses will begin.

ENTER DEVICE NO. 00=QUIT 01	**Voice:** "ENTER DEVICE CODE NOW" Enter the 2-digit number of the relay you want to activate.

nn DEVICE IS OFF HIT 0=OFF , 1=ON	**Voice:** "[voice descriptor] DEVICE nn ON/OFF. FOR [voice descriptor] ON ENTER 1, FOR [voice descriptor] OFF ENTER 0"
	Press **0** or **1** to turn the device off or on, respectively. NOTE: "nn" represents the 2-digit relay number; *voice descriptor* is the relay voice descriptor programmed by the installer (see "Relay Voice Descriptors" paragraph in *Section 22: #93 Menu Mode Programming*).
nn DEVICE IS OFF HIT THE "*" KEY	**Voice:** "[voice descriptor] DEVICE nn ON/OFF. TO EXIT ENTER 00 NOW"
	On the keypad, press ✳ to continue. The "ENTER DEVICE NO." prompt will appear. On the telephone keypad, enter **00** to exit, or enter the next relay number you want to program. The current on/off state of that relay will be annunciated as described above. Alternatively, if 6 seconds elapse with no key depression, the voice module will annunciate the "ENTER DEVICE CODE NOW" message.

A relay that has been designated as a fire relay is automatically restricted to prevent inadvertent activation/deactivation by users. Only the Installer Code can override this restriction. If the installer attempts to access a fire relay, the message "RESTRICTED USE OVERRIDE" will be displayed. You can then test the relay for manual operation.

Testing The System

. . . .

In This Section

♦ *Checkout Procedure for Hardwired Zones*

♦ *Checkout Procedure for Polling Loop Zones*

♦ *Checkout Procedure for Wireless Zones*

♦ *Battery Test*

♦ *Dialer Test*

♦ *Fire Drill Test*

♦ *One-Man Fire Walk-Test*

♦ *Burglary Walk-Test*

♦ *Armed Burglary System Test*

♦ *Trouble Conditions*

♦ *Turning the System Over to the User*

♦ *To the Installer*

. . . .

Checkout Procedure for Hardwired Zones

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

1. Make certain that none of the devices or sensors connected to the hardwired zones is in a faulted state. Doors and windows with contacts should be closed, and 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,

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

   press ✳ to display the faulted zone(s).

   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 keypad displays "DISARMED...READY TO ARM," you can proceed to the next step.

3. Fault and then restore each contact or sensor on each zone individually to verify that it is being monitored by the system. Each time you fault a zone, 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 one or more zones are not displayed at the correct partition's keypad(s), check both keypad programming and zone programming to verify the correct partition assignment.

4. When you see the proper display on the keypad(s), the hardwired zones in the system are functioning properly.

5. Power-down and continue the testing procedure.

Checkout Procedure for Polling Loop Zones

After you complete installation of all polling loop zones, check each partition of the security system as follows:

1. Be sure that none of the devices or sensors connected to the polling loop is in a faulted state. Doors and windows with contacts should be closed, and 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 the word "CHECK" or "TRBL" is displayed, along with one or more zone numbers, the system either ***does not detect*** the displayed zone(s); or the tamper switches on 4190WH units have been tripped. Check the DIP switch settings for the zone(s) and your connections, and/or verify that the covers for the 4190WH units are in place. When you have corrected the situation, enter the [User Code] + [OFF] sequence twice to clear the display.

    If the following is displayed,

```
DISARMED  Press *
to show faults
```

    press the ✱ key to display the faulted zone(s).

Restore any faulted zone(s) as necessary. When the keypad displays "DISARMED...READY TO ARM," proceed to the next step.

4. Fault and then restore each 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 one or more zones are not displayed at the correct partition's keypad(s), check both keypad programming and zone programming to verify the correct partition assignment.

5. When you see the proper display on the keypad(s), the polling loop zones in the system are functioning properly.

6. Power-down and continue the testing procedure.

UL

- The 4208 must be mounted either inside the VISTA-100 cabinet or in a separate enclosure that has a tamper-supervised cover.
- The 4190WH right loop must not be used, and the left loop must be EOLR-supervised.
- The 4278 auxiliary sensor loop cannot be used.
- The 4194 is not UL Listed.
- The 4297 must be powered from the VISTA-100 auxiliary power output or from a UL Listed supplementary power supply.
- For Commercial Fire installations, only the first 6 zones (which utilize 4.7k resistors) on a 4208 Zone Expander may be used. The last 2 zones may not be used.

Checkout Procedure for Wireless Zones

Transmitter ID Sniffer Mode

Use the Transmitter Sniffer Mode to test that all transmitters have been properly programmed. To test the Transmitter ID Sniffer, take the following steps:

1. Enter **[Installer Code] + [#] + 3**. The keypad will display the zone numbers of all wireless units programmed into the system.

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

A transmitter not programmed (5800 Series) or whose DIP switch is not set correctly (5700 Series) will not have its zone number removed from the display.

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

Go/No Go Test Mode

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

Make sure that all partitions are disarmed when you perform this test. Because the wireless receiver gain is reduced, checking in this mode helps you to determine if transmitters have been mounted in good locations, and verifies that the RF transmission has sufficient signal amplitude margin for the installed system.

or multi-partition systems, make sure all partitions are disarmed before entering this mode.

To conduct a Go/No Go Test, take the following steps:

1. Enter **[Installer Code] + 5 (TEST)**.

2. After you have placed transmitters where you want them and you have connected the approximately correct length of wire to each transmitter's screw terminals, fault each transmitter. *Do not conduct this test with your hand wrapped around the transmitter, as this will cause inaccurate results.*

- If you are using a single receiver, the keypad will beep three times to indicate that it has received a signal. If you are using two receivers, 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, moving it 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 Go/No Go Test Mode by entering **[Installer Code] + 1 + OFF**.

Battery Test

When AC power is present, the VISTA-100 will run a brief battery test every 60 seconds to determine if there is a battery connected, and will run an extended battery test every 24 hours to check on the battery's condition. If the VISTA-100 finds that the battery voltage is low (less than approximately 11.5V) during one of these tests, it initiates a keypad "SYSTEM LOBAT" display and a rapid beeping sound at the console. 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.

If the PS24 is used, it will also run a brief battery test every 60 seconds to check that a battery is connected, and will run an extended battery test every 17 hours to check the actual battery condition. If the PS24 finds the battery voltage low (less than approximately 23V), it will open-circuit its low battery output. Be sure to wire this output to one of the VISTA-100's EOLR-supervised zones (zones 3-8), and program the zone for 24-hour trouble response (zone type 19) so that the VISTA-100 will initiate the required local annunciation and dialer reports.

Dialer Test

You can program the VISTA-100 to transmit test reports automatically to a central station at intervals ranging from once per hour to once per 999 hours (field *27). UL requires that a test report be transmitted at least once every 24 hours. You can program the VISTA-100 to send the first report at any time of the day, or at any day of the week after power-up (field *83).

Fire Drill Test (Code + [#] + 69)

This test causes fire bells, or any bell having a non-zero response type in field 3*10, to be activated (in either steady or pulsing manner as programmed in field 3*15) for the purpose of conducting a fire drill or a bell test. This test can only be activated by the installer or a master user by entering the corresponding security code and pressing [#] + 69 while the burglary portion of the system is disarmed. Consoles will display "FIRE DRILL ACTIVE" while this test is active. You can stop the test by entering any security code and pressing OFF. Note that the system continues to monitor all 24-hour zones (fire, panic, etc.) while this test is active, and will end the test if an alarm condition is detected. This test should be conducted at periodic intervals, as determined by the local authority having jurisdiction.

One-Man Fire Walk-Test (Code + [#] + 68)

This test causes the system to sound console beeps and bell dings in response to fire zone faults (zone types 9, 16, and 17) for the purpose of allowing proper zone operation to be checked without triggering alarms. Note that the system will not be operational as an alarm system (i.e., it cannot sense alarms) while this test is active. The test can only be activated

by the installer by entering **[Installer Code] + [#] + 68** while the burglary portion of the system is disarmed. This test should be conducted at periodic intervals as determined by the local authority having jurisdiction.

When this test is first activated, the system will display:

| USE BELL DING? |
| 0 = NO 1 = YES |

Enter **1** (YES) if you want the fire bells associated with each point to sound for 3 seconds when the point is faulted. Enter **0** (NO) if you want only keypad sounders. The keypad will display the next prompt.

| AUTO-TEST DET? |
| 0 = NO   1 = YES |

Enter **1** (YES) to have the system automatically test all polling loop points with a fire response type 9 or 16. Other fire zones will have to be tested manually. Enter **0** (NO) to test every point manually. The keypad will display the next prompt.

For true detector sensitivity tests and for compliance with fire codes, you must enter **0** (NO) at this prompt.

| LOG RESULTS? |
| 0 = NO 1 = YES |

Enter **1** (YES) if you want the system to log each point as it is tested. (A list of untested points will also be logged.) Enter **0** (NO) if you do not want the system to keep track of the results. The next prompt will be displayed only if Contact ID report format has been selected.

| C.S. TRANSMIT? |
| 0 = NO   1 = YES |

Enter **1** (YES) if you want results of the test sent to the central station. This report will consist of a list of points that have been tested followed by a list of points that have not been tested. Enter **0** (NO) if you do not want to report the results. A "Walk-Test Start" report and a "Walk-Test End" report will be sent in either case (if you have programmed it).

When you activate the Test Mode, the system will sound fire bells (or any bell having a non-zero response type in field 3*10) for 3 seconds. The system will also send a "Start of Walk Test" message to the central station, and will light all keypad indicators and display window segments to verify that they are working properly. The keypads will then display "FIRE WALK TEST IN PROGRESS," and will sound a single beep every 15 seconds while this test is active.

The system will build a list of all the fire zones (zone response types 9, 16, 17, 18) that need to be tested. You will see these points scrolled on the display. For each point, the keypad will display "UNTST XXX," where XXX is the point number followed by an alpha descriptor for the point.

If you selected the AUTO-TEST option, the control panel will attempt to automatically test all of the polling loop points that have a zone response type of 9 or 16. For points that must be manually tested, fault and reset each fire alarm sensor in turn. Each action should cause keypads to beep and fire bells to ding. The keypads will display the zone number and the associated alpha descriptor while the zone remains faulted. The system automatically issues a smoke detector power reset approximately 10 seconds after it finds a fault on one of these zones, to allow faulted detectors to be reset.

To end the test, enter any security code and press OFF. An "End of Walk Test" message will be sent to the central station (if one was programmed). Note that the test will automatically end if no faults are detected within a 60-minute time period.

Burglary Walk-Test (Code + TEST 5)

The Burglary Walk-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 non-fire related 24-hour zones, but will trigger fire alarms while this test is active. This test can only be activated by the installer, a master user, or a manager user by entering the corresponding 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 you first activate this test, the system will sound burglary bells (or any bell having a non-zero response type in each bell's supervisory zone) for 3 seconds. The system will send a "Start of Walk-Test" message to the central station. The keypads will display "BURG WALK 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 approximately 10 seconds after it finds a fault on the affected zone, to allow faulted detectors to be reset.

To end this test, enter any security code and press OFF. An "End of Walk-Test" message will be sent to the central station.

Armed Burglary System Test

- Alarm messages will be sent to the central station during the following tests. Notify the central station that a test will be in progress.
- 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 that the phone line is connected, the correct report format is programmed, etc.

To conduct an Armed Burglary System Test, take the following steps:

1. Arm the system and fault one or more zones. Silence the alarm sounder(s) each time by entering any code and pressing OFF. Check that Entry/Exit delay zones provide the assigned delay times.

2. Check the keypad-initiated alarms, if you have programmed them, 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 "999" will be displayed for [✳] and [#]. (If 1 and [✳] are pressed, a "995" will be displayed; if 3 and [#] are pressed, a "996" 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, but a report will be sent to the central station.

3. Notify the central station that all tests are finished, and verify the report results with central station personnel.

Trouble Conditions

Supervisory Messages

A keypad display of "SUPV" accompanied by a zone number (001-087) and an alpha descriptor (if one has been programmed) indicates that a fire supervisory condition exists on that zone. This means that the operation of the fire alarm system might be compromised.

Check or Trouble Messages

- A display of "CHECK" or "TRBL" (as programmed in field 3*00) accompanied by a zone number (001-087) and an alpha descriptor indicates that a problem exists with that zone. Zone trouble might 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 detected by the control panel.
  - A polling loop zone has been tampered (on a 4190, the cover has been removed).
  - A wireless zone has not checked in during the time programmed in field 1*31.
  - A 5800 Series transmitter has been tampered (its cover has been removed).
- "CHECK" accompanied by a numeric display of "6XX," where XX = 01-16, indicates a trouble on a 4204CF supervised bell output (corresponding relay number 01-16).
- "CHECK" accompanied by a numeric display of "8XX," where XX = 00-31, indicates a trouble on a peripheral device (connected to the panel's keypad terminals) of the corresponding device address (00-31).
- "CHECK" accompanied by a numeric display of "9XX," where XX = 00-99, indicates that a system trouble exists (dialers, bell outputs, ground fault, etc.). See "Zone Index" in *Section 20: Zone Index/Zone Type Defaults*.

the problem has been corrected, key an OFF sequence (Security Code + OFF) twice to clear the display.

Other System Messages

- "COMM. FAILURE" at the keypad:
  Indicates that a failure occurred in the telephone communication portion of your system.

- "LO BAT" and a zone descriptor, accompanied by a once-per-minute beep at the keypad:
  Indicates that a low-battery condition exists in the wireless transmitter displayed. You can silence the audible warning by pressing any key.

- "SYSTEM LO BAT":
  Indicates that a low-battery condition exists with the system's backup battery.

- "RCVR SET UP ERROR" at the keypad:
  Indicates that the system has more wireless zones programmed than the wireless receiver can support. If this is not corrected, none of the zones in the system will be protected. Use an appropriate receiver for the number of zones in your system.

- "MODEM COMM":
  Indicates that the control is on-line with a remote computer.

Fire System Off-Normal Report

If you have programmed it, a unique Off-Normal report will be generated instead of the periodic test report if any of the following conditions are present at the time of the report:

- Fire trouble on any zone (zone response types 9, 16, 17, 18, 19)
- Fire supervisory present (zone response type 18)
- Unrestored fire alarm on any zone
- Bypass of any fire zone
- Bell circuit fault for any supervised fire bell
- Bypass/disable of any supervised fire bell
- Telco fault of either dialer line
- Bypass/disable of either dialer
- Earth ground fault present
- Bypass of earth ground supervisory zone
- Fault on LORRA "XMIT OK" signal (if it is enabled)
- LORRA trigger bypassed
- AC failure
- Low system battery
- Keypad supervision fault

This report will be sent as follows:

Contact ID: Code 608
High Speed: Channel 3 of system report used (channel 9=6)
Low Speed: Digits programmed in System Group #4 report codes (#93 Report Code Programming Mode).

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 to which your system's transformer is wired 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

Before you turn the system over to the user, fully explain the operation of the system to the user by going over each of its functions. Review the User's Manual with the users.

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.

You 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. Include recommendations for a specific program of frequent testing (at least weekly) to ensure 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.
- Be sure all keypads and devices are addressed properly.
- Note the proper model number of this product, and the version level (if you know it), 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 can contact Technical Support via toll-free fax. Please include your return fax number. You will receive a reply within 24 hours. You can also contact Technical Support via modem to ATLIS-BBS, Tech Support's Electronic Bulletin Board System. Replies are posted within 24 hours.

East Coast Technical Support: 1-800-645-7492 (8 a.m.-6 p.m. E.S.T.)
West Coast Technical Support: 1-800-458-9469 (8 a.m.-5 p.m. P.S.T.)
Technical Support Fax Number: 1-800-447-5086

ATLIS-BBS Electronic Bulletin Board System: 1-516-496-3980
(1200 - 9600 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 both UL Residential and UL Commercial Burglary installations:

- All partitions must be owned and managed by the same person(s).

- All partitions must be part of one building at one street address.

- The audible alarm device(s) must be placed where it/they can be heard by all partitions.

- The control cabinet must be protected from unauthorized access. This can be done by installing a tamper switch on the cabinet door (supplied with the VISTA-100) 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. You must use the 24-hour alarm response for multi-partitioned systems.

- Remote downloading and auto-disarming are not UL Listed features.

UL864/NFPA Local Fire

Configure at least one bell output for supervision, and wire polarized fire alarm indicators to the bell. Program this bell for temporal sounding.

UL864/NFPA Central Station and Remote Station Fire

- Size the backup battery for 24-hour standby (for central station) or 60-hour standby (for remote station) time.

- For central station service, you can use the 7720ULF or 7920SE LORRAs alone, the main dialer with a LORRA, or the main dialer with the 5140DLM backup dialer module. For remote station service, you must use the main dialer with the 5140DLM backup dialer module.

- When using the LORRA, connect its channel inputs to the VISTA-100's fire alarm, fire supervisory (if one is used), and trouble triggers. Also connect its XMIT OKAY output to Input 1 on the VISTA-100's J2 header. Program J2 Input 1 system zone 973 for 24-hour trouble response (type 19) to send radio faults.

- When the main dialer is used, enable it (using field 3*30) and connect it to a telephone line. Assign a 24-hour trouble response (type 19) to system zone 974 to enable main dialer supervision. The VISTA-100 will activate the trouble trigger when it detects a main dialer supervision fault.

- When the backup dialer is used, install it on the VISTA-100's PCB shield. Enable it (using field 3*30) and connect it to a separate telephone line. Assign a 24-hour trouble response (type 19) to system zone 975 to enable backup dialer supervision.

- When the dialer is used, program it to send fire alarm, fire supervisory (if used), trouble, AC loss, low battery, normal dialer test, and off-normal dialer test reports. Field *27 must be set to 024 maximum so that test reports are sent at least once every 24 hours.

- If a secondary number is programmed, set the maximum number of dialer re-tries to 3, 4, or 5 in field 3*21.

UL609 Grade A Local Mercantile Premises/Local Mercantile Safe & Vault

- All zones must be configured for EOLR supervision (field *41=0). Wireless sensors must not be used. If 4190WH RPMs are used, set field *24 to 0 to enable tamper detection.

- Attach a door tamper switch (supplied) to the VISTA-100 cabinet backbox. For safe and vault installations, a shock sensor (not supplied) must also be attached to the backbox. (Also see "Mounting the Control Cabinet" in *Section 4: Installing the Control*).

  In addition, for safe and vault applications, a UL Listed contact must be used inside the cabinet through one of the knockouts for pry-off tamper detection purposes.

- Wire an ADEMCO AB12 Grade A Bell/Box to the bell output. Bell wires must be run in conduit. Program the bell output for a 16- (or more) minute timeout and for confirmation of arming ding. (Also see *Section 13: External Sounders.*)

- Wire the VISTA-100 door tamper switch, AB12 Bell/Box tamper switches, and the VISTA-100 Shock Sensor and Pry-Off Tamper Switch (if used) to zone 6. Select the Zone 6 Alternate Tamper Function (field 3*17 = 1) and 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 multi-partitioned systems.

- Entry delays must not exceed 45 seconds, and exit delays must not exceed 60 seconds.

UL365 Police Station Connected Burglar Alarm

Follow the instructions below for UL609 local installations.

For Grade A Service:

- You can use the VISTA-100 Dialer alone, or the 7720 Long Range Radio alone.

- When using the dialer, program it to send burglary alarm, low battery and communicator test reports. Field *27 must be set to 024 (or less) so that test reports are sent at least once every 24 hours.

- When using the 7720, connect it to the VISTA-100 burglary/audible panic alarm trigger.

For Grade AA Service:

- You must use a 7920SE Long Range Radio.

- Connect the 7920SE to the VISTA-100 burglary/audible panic alarm trigger.

UL611/UL1610 Central Station Burglary Alarm

- Follow the instructions for UL609 Local installations given above.

For Grade A Service:

- You must use the VISTA-100 Dialer with a 7720 Long Range Radio.

- Connect the control's burglary/audible panic alarm trigger and trouble trigger (on the J2 header) to the 7720. Program a 24-hour trouble response for system zone 974 to enable main dialer supervision. The VISTA-100 will activate the burglary/audible panic trigger when a corresponding alarm is detected, and will activate the trouble trigger when a main dialer fault is detected.

- Also connect the 7720's radio fault output to one of the VISTA-100's EOLR-supervised zones (1-8). Program this zone for a trouble-by-day/alarm-by-night (type 05) or a 24-hour alarm (type 07 or 08) response to radio faults.

  - Program the control's dialer to send burglary alarm, trouble, opening/closing, and low-battery reports.

For Grade AA Service:

- Follow the instructions for Grade A service, except use the 7920SE in place of the 7720.

California State Fire Marshal (CSFM) Requirements

For 24-hour battery back-up: The California State Fire Marshal has published new regulations that require all residential fire alarm control panels installed after June 30, 1993, to be provided with a backup battery with sufficient capacity to operate the panel and its attached peripheral devices for 24 hours in the intended standby condition, followed by at least 4 minutes in the intended fire alarm signaling condition. Be sure to size the battery to meet this requirement.

"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 following booklet prepared by the Federal Communications Commission helpful:

"Interference Handbook"

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.

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.

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 that 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 5. 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.

**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 might 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 POLLING LOOP DEVICES

4275 PIR

SHOWN SET FOR ID 10 (A)

1 2 3 4 5 6 7 — UP / DN

SIDE VIEW (UP)

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 "DN" **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 "UP" **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

1 2 3 4 5 6 7 8 — UP / DN

SIDE VIEW (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

1 2 3 4 5 6 — UP

SIDE VIEW (DN)

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 RF SYSTEM 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)

POS.6 UP= XMTR ID 62
DN= XMTR ID 63

SIDE VIEW (UP)

5727 KEYPAD

HOUSE ID (1 SHOWN)

XMTR ID FIXED AT "00"

SIDE VIEW (DN)

5706/5707 SMOKE DETECTOR/TRANSMITTER

HOUSE ID (1 SHOWN)

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)

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

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

HOUSE ID (1 SHOWN)

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	UP
34	—	UP	UP	UP	UP	—
35	—	UP	UP	UP	—	UP
36	—	UP	UP	UP	—	—
37	—	UP	UP	—	UP	UP
38	—	UP	UP	—	UP	—
39	—	UP	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	—	—	U	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

SW4 / SW3

TERMINALS

XMTR ID (33 SHOWN)
HOUSE ID (1 SHOWN)

SIDE VIEW (UP)

POS. 6: UP = N.O.
DN = N.C.

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

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

For 5700 series transmitters not shown in this table, refer to the instructions accompanying each transmitter.

Summary of System Commands

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Event Logging Commands	Event Log Display = Code + [#] + 60 (Installer or Master only) Event Log Print = Code + [#] + 61 (Installer or Master only) Clear Event Log = Code + [#] + 62 (Installer or Master only)
Wireless System Commands	House ID Sniffer Mode = Code + [#] + 2 (Installer only) Transmitter ID Test = Code + [#] + 3 (Installer only) Go/No Go Test = Code + 5 (Test Key)
User Code Commands	Add a User Code = User Code + 8 + New User Number + New User's Code Change a Code = User Code + 8 + User Number + New User's Code Delete a User's Code = Your User Code + 8 + User Number to be deleted + Your Code again View User Capability = User's Code + ✳ + ✳ Set Real-Time Clock (Installer, Master only) = Code + [#] + 63

Arming Functions	Arming Away	Enter Code + Away [2]
	Arming Stay	Enter Code + Stay [3]
	Arming Instant	Enter Code + Instant [7]
	Arming Maximum	Enter Code + Maximum [4]
	Quick Arm	Use [#] key instead of user code followed by any of the above arming mode keys.
	Global Arming	If enabled for the user, the keypad will display a prompt. Answer the prompted questions.
	Disarming	Enter Code + Off [1]
	Bypassing Zones	Enter Code + Bypass [6] + Zone Number. To automatically bypass all faulted zones, use "Quick Bypass" method.
	Quick Bypass	Enter Code + Bypass + [#]
	Chime Mode	Enter Code + Chime [9]. To turn Chime mode off, enter Code + Chime again.
	Partition GOTO	User Code + ✳ + Partition Number 0-8
	GOTO Home Partition	User Code + ✳ + 0
	Panics	✳ + 1 Zone 95 (A key)
		✳ + [#] Zone 99 (B key)
		[#] + 3 Zone 96 (C key)
	View Downloaded Messages	Press 0 for 5 seconds.
	Display All Zone Descriptors	Press ✳ for 5 seconds.
	Display User Self Help	Hold any key for 5 seconds.
Programming Commands	Site-Initiated Download = User Code + [#] + 1 Direct-Wire Download Enable = User Code + [#] + 5 Enter Program Mode = Installer Code + 8000 Exit Program Mode = *99 or *98	

Scheduling Commands	Installer-Programmed Schedule Events = Installer Code + [#] + 80
	Temporary Schedule Editing = User Code + [#] + 81 (Installer, Master, Manager only)
	Extend Closing Window = User Code + [#] + 82 (Installer, Master, Manager only)
	End User Output Device Programming = User Code + [#] + 83
Output Device Control	Activate Output Device as Programmed = User Code + [#] + 71
	Activate Output Device as Programmed = User Code + [#] + 72
	Activate Access Relay for Current Partition = User Code + 0
	Activate Output Device Manually = User Code + [#] + 70.

Specifications

• •

VISTA-100 CONTROL

Physical: 18"H X 14.5"W X 4.3"D

Electrical:

Primary Power: From ADEMCO No. 1451 Transformer with enclosure; rated 18VAC, 72VA

Backup Battery: 12VDC, 12AH min. to 34.4AH max. lead acid battery (gel type)

Alarm Power: 12VDC, 1.7 amps max. for each bell output

Aux. Standby Pwr: 12VDC, 1 amp max.

Total Power: Combined auxiliary standby and alarm currents must not exceed 2.3 amps.

Standby Time: 24 hours with 1 amp aux. standby load or 60 hours with 205mA aux. standby load using 34.4AH battery

Fusing: Battery input, auxiliary and bell power outputs are protected using PTC circuit protectors. All outputs are power-limited.

Main Dialer:

Line Seize: Double Pole

Ringer Equiv.:   0.7B

FCC Registration: AC398U-68192-AL-E

TLM Threshold: Good line when tip-to-ring voltage is greater than approx. 25V (13V when blue jumper cut) or when handset current is greater than approx. 10mA. Bad line when both voltage and current are below these levels.

Formats: ADEMCO Low Speed, ADEMCO 4+2 Express, ADEMCO High Speed, ADEMCO Contact ID, Sescoa, and Radionics

Agency Listings:

Burglary: UL609 Grade A Local Mercantile Premises and Mercantile Safe and Vault

                    UL611/UL1610 Grades A, AA Central Station

                    UL365 Grades A, AA Police Connect

Fire: UL864-NFPA 72 Local, Central Station, and Remote Station

5140DLM BACKUP DIALER MODULE

Physical: 2.75"H X 4"W X 1"D

                    Mounts on VISTA-100 main PC board shield using standoffs supplied.

Misc.:   Connects to VISTA-100 main PC board J3 header using ribbon cable supplied.

FCC Registration: AC398U-62668-MO-N

5140LED ANNUNCIATOR MODULE

Physical: 4.5"H X 2.75"W X 1.5"D

                    Mounts to single-gang electrical box.

Indicators: AC Power, Comm Failure, Dialer 1 Fault, and Dialer 2 Fault.

                    Connect indicator inputs to VISTA-100 trigger outputs (J2 header)

DIGITAL COMMUNICATOR

Formats Supported:

ADEMCO High Speed
ADEMCO 4+2 Express
ADEMCO Low Speed
ADEMCO Contact ID
Sescoa
Radionics Low Speed

Line Seize: Double Pole
Ringer Equivalence: 0.7B
FCC Registration No.: AC398U-68192-AL-E

6139(R) REMOTE KEYPAD

Physical:

Width:	6.25 inches
Height:	4.75 inches
Depth:	1.25 inches (6137 = 1 inch)

Electrical: Voltage Input: 12VDC

Current Drain: 100 mA; reduces to 40mA when control is operating in standby mode from backup battery only.

Interface Wiring for Keypads:

RED:	12VDC input (+) auxiliary power
BLUE:	Not used
GREEN:	Data to control panel
YELLOW:	Data from control panel
BLACK:	Ground and (-) connection from supplemental power supply.

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.

Notes

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 and repair service is to be provided with this equipment.
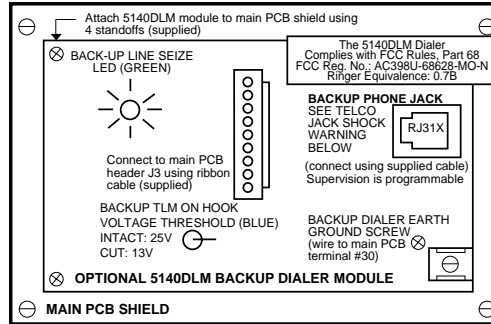
WARNING:
THIS UNIT MAY BE PROGRAMMED TO INCLUDE AN ALARM VERIFICATION FEATURE THAT WILL RESULT IN A DELAY OF THE SYSTEM ALARM SIGNAL FROM THE INDICATED FIRE CIRCUITS. THE TOTAL DELAY (CONTROL UNIT PLUS SMOKE DETECTORS) SHALL NOT EXCEED 60 SECONDS. NO OTHER INITIATING DEVICES SHALL BE CONNECTED TO THESE CIRCUITS UNLESS APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

CIRCUIT (ZONE)	CONTROL UNIT DELAY-SEC	SMOKE DETECTOR MODEL	DELAY-SEC

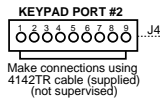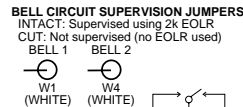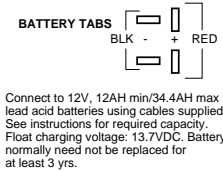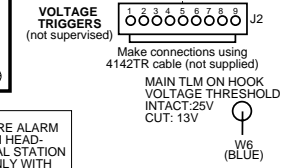THE DELAY TIME MARKED ON THE INSTALLED DETECTOR(S) IS TO BE USED

TYPES OF FIRE SIGNALLING SERVICE:
Manual fire alarm, automatic fire alarm, sprinkler supervisory and waterflow alarm. UL Listed local control (noncoded). UL Listed central station protected premises unit when used with 5140DLM backup dialer module. Installation limits under jurisdiction of local authority.
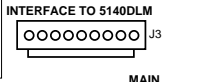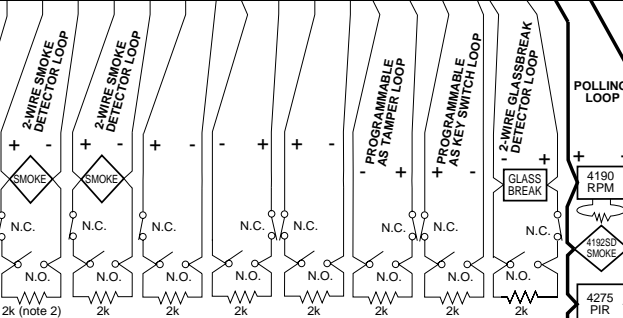
Attach 5140DLM module to main PCB shield using 4 standoffs (supplied)

⊗ BACK-UP LINE SEIZE LED (GREEN)

The 5140DLM Dialer Complies with FCC Rules, Part 68 FCC Reg. No.: AC398U-68628-MO-N Ringer Equivalence: 0.7B

BACKUP PHONE JACK
SEE TELCO JACK SHOCK WARNING BELOW

RJ31X

(connect using supplied cable) Supervision is programmable

Connect to main PCB header J3 using ribbon cable (supplied)

BACKUP TLM ON HOOK VOLTAGE THRESHOLD (BLUE)
INTACT: 25V
CUT: 13V

BACKUP DIALER EARTH GROUND SCREW (wire to main PCB terminal #30) ⊗

⊗ **OPTIONAL 5140DLM BACKUP DIALER MODULE**
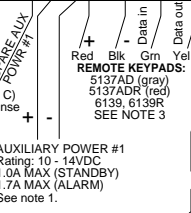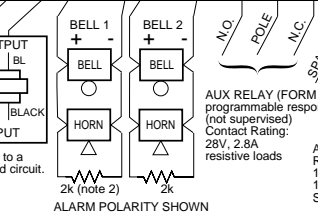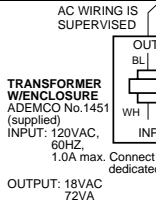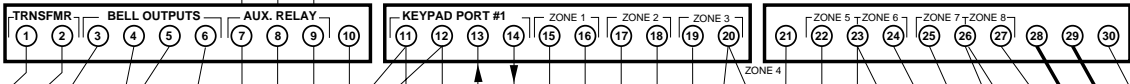
⊖ **MAIN PCB SHIELD** ⊖

J2 VOLTAGE TRIGGERS
See instructions for trigger use and programming (default functions shown)
1. OUT 4 (SILENT PANIC/DURESS)
2. OUT 7 (TROUBLE)
3. OUT 3 (BURGLARY/AUDIBLE PANIC)
4. OUT 6 (SUPERVISORY)
5. OUT 2 (FIRE)
6. OUT 5 (REMOTE KEYPAD SOUNDER)
7. OUT 1 (OPEN/CLOSE)
8. GROUND
9. IN 1 (N.O. LOOP)
RATINGS: OUT 1, 5, 7:
   LOW: 2K TO GROUND
   HIGH: 10 - 14VDC, 20mA MAX
OTHER OUTS: LOW: 1K TO GROUND
   HIGH: 10 - 14VDC THRU 5K

VOLTAGE TRIGGERS (not supervised) `1 2 3 4 5 6 7 8 9` J2

Make connections using 4142TR cable (not supplied)

MAIN TLM ON HOOK VOLTAGE THRESHOLD
INTACT:25V
CUT: 13V

W6 (BLUE)

INTERFACE TO 5140DLM
`○○○○○○○○○` J3

CONNECTION OF THE FIRE ALARM SIGNAL TO A FIRE ALARM HEAD-QUARTERS OR A CENTRAL STATION SHALL BE PERMITTED ONLY WITH THE APPROVAL OF THE LOCAL AUTHORITY HAVING JURISDICTION. THE BURGLARY ALARM SIGNAL SHALL NOT BE CONNECTED TO A POLICE EMERGENCY NUMBER.

J4 KEYPAD PORT #2
See instr. regarding port #2 use
1. GROUND (to console black wire)
3. DATA IN 2 (to console green wire)
5. AUX PWR #2 (to console red wire)
   Rating: 10 - 14 VDC,
   400mA max. See note 1
7. DATA OUT 2 (to console yellow wire)
PINS 2, 3, 6, 8 & 9 NOT USED

BATTERY TABS BLK - + RED

Connect to 12V, 12AH min/34.4AH max lead acid batteries using cables supplied. See instructions for required capacity. Float charging voltage: 13.7VDC. Battery normally need not be replaced for at least 3 yrs.

BELL CIRCUIT SUPERVISION JUMPERS
INTACT: Supervised using 2k EOLR
CUT: Not supervised (no EOLR used)
BELL 1   BELL 2
W1 (WHITE)   W4 (WHITE)

KEYPAD PORT #2
`1 2 3 4 5 6 7 8 9` J4
Make connections using 4142TR cable (supplied) (not supervised)

OPTIONAL REMOVABLE TERMINAL BLOCK KIT: ADEMCO NO. 4142BLK

TRNSFMR		BELL OUTPUTS				AUX. RELAY				KEYPAD PORT #1				ZONE 1		ZONE 2		ZONE 3		ZONE 5	ZONE 6	ZONE 7	ZONE 8			
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 4

MAIN
Connect RJ31X using cable supplied. Supervision is programmable

RJ31X

PHONE JACK

AC WIRING IS SUPERVISED

TRANSFORMER W/ENCLOSURE
ADEMCO No.1451 (supplied)
INPUT: 120VAC, 60HZ, 1.0A max. Connect to a dedicated circuit.
OUTPUT: 18VAC 72VA

OUTPUT BL BL
WH BLACK
INPUT

BELL 1   BELL 2
+ -   + -
BELL   BELL
HORN   HORN
2k (note 2)   2k
ALARM POLARITY SHOWN

N.O. POLE N.C.
SPARE AUX POWER #1

AUX RELAY (FORM C) programmable response (not supervised) Contact Rating: 28V, 2.8A resistive loads

AUXILIARY POWER #1
Rating: 10 - 14VDC
1.0A MAX (STANDBY)
1.7A MAX (ALARM)
See note 1.

+ Data in Data out
Red Blk Grn Yel
REMOTE KEYPADS:
5137AD (gray)
5137ADR (red)
6139, 6139R
SEE NOTE 3

2-WIRE SMOKE DETECTOR LOOP SMOKE
2-WIRE SMOKE DETECTOR LOOP SMOKE
PROGRAMMABLE AS TAMPER LOOP
PROGRAMMABLE AS KEY SWITCH LOOP
2-WIRE GLASSBREAK DETECTOR LOOP GLASS BREAK

N.C. N.C. N.C. N.C. N.C. N.C. N.C. N.C.
N.O. N.O. N.O. N.O. N.O. N.O. N.O. N.O.
2k (note 2) 2k 2k 2k 2k 2k 2k

POLLING LOOP
+ -
4190 RPM
4192SD SMOKE
4275 PIR

WARNING:
TO PREVENT RISK OF ELECTRICAL SHOCK, DISCONNECT TELCO JACK BEFORE SERVICING THIS PANEL

EARTH GROUND
See instructions for proper earth ground connections

TO OTHER DEVICES
Polling Loop Ratings: (supervised)
128mA max. See note 1. See instructions for compatible devices and for max wire run length

NOTES:

NOTE 1:
The combined standby current drawn from aux pwr #1, aux pwr #2 and polling loop cannot exceed 1.0A. The combined alarm current drawn from aux pwr #1, aux pwr #2, polling loop, bell 1 and bell 2 cannot exceed 2.3A.

NOTE 2:
2k EOLR is Ademco model 610-7

NOTE 3:
See instructions on setting addresses & for max # of keypads and wire run length restrictions. Keypad color subject to approval of local authority.

Each output may be selected for Style Y supervision or no supervision (See main PCB jumpers W1, W4 and program field 3*10)
FIRE CKTS: Supervise using 2k EOLR. Use polarized sounding devices.
BURG CKTS: Supervision not req'd. EOLRs not req'd. May use non-polarized devices.
Ratings: 10 - 14VDC, 1.7A max. See note 1.

ALL CIRCUITS ARE POWER-LIMITED EXCEPT THE OUTPUT OF THE 1451 TRANSFORMER

ZONE 1-8 NOTES
• All zones provide Style B supervision
• Zone resistance (excluding EOLR):
  - Zones 1, 2, 8: 100 ohms max
  - Other zones: 300 ohms max
• Zone response: 350 - 500mS (all zones)

• Ratings for zones 1,2:
  - 10 - 14VDC
  - 2mA max for smoke det. (up to 16 detectors of the type specified in the instructions can be used)
• UL compatibility ID: A
Do not mix fire and burg. sensors on one loop.
N.C. contacts for burg. usage only.

The VISTA-100 Main Dialer Complies with FCC Rules, Part 68 FCC Reg. No.: AC398U-68192-AL-E Ringer Equivalence: 0.7B

VISTA-100
SUMMARY OF CONNECTIONS

ADEMCO
GROUP

165 Eileen Way, Syosset, New York, 11791