Honeywell

VISTA-32FBPT

Commercial Fire and Burglary
Partitioned Security System
with Scheduling

Installation and Setup Guide

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Conventions Used in This Manual

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

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

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

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

```
ZONE PROG?
  1 = YES 0 = NO   0
```

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

∗**00**   Additional system options are programmed via data fields, which are indicated by a "star" (∗) followed by the data field number.

PRODUCT MODEL NUMBERS:

Unless noted otherwise, references to specific model numbers represent Honeywell products.

UL864 (Commercial Fire) Compliance

General Requirements

The VISTA-32FBPT control panels provide features that allow the system to meet UL864 Commercial Fire requirements. To meet these requirements, follow the guidelines outlined in this section.

- The reporting of bypassed points to the central station must be enabled in Report Code Programming mode.
- Fire alarm notification circuits must be supervised (e.g., supervisory zones 970 and 971 for Bell 1 and Bell 2 outputs)
- Only one relay of the 4204CF can be programmed for a NAC. If the 4204CF relay is programmed as a NAC, the stop action must be programmed as a zone type 62, Bell 2 Timeout.
- Output devices are not intended for overriding automatic fire and building functions.
- Line cut detection must be enabled for both the main and backup phone lines (supervisory zones 974 and 975).
- Access Control Devices cannot be used.
- Audio Alarm Verification Devices cannot be used.
- Remote downloading can only be performed if a service person is at the premises.
- All supervision zones for the polling loop, RF receivers, keypads, NAC outputs, and telephone lines that are used, must be enabled as zone type 19 (24-hour trouble).

Programming Field Settings for UL864 Compliance

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

Program feature or option	Permitted in UL864? Y/N	Possible settings	Settings permitted in UL 864
*08 TEMPORAL SIREN PULSE	N	0 = disable 1 = enable	Not used at this time. Must be set to "0" (disable).
*13 BELL 1 TIMEOUT	Y	Enter 01-15 multiplied by 2 minutes. 00 = no timeout.	Must be set to "3" (Minimum of 6 minutes).
*14 RS232 comm.	N	0 = no 1 = yes	Must be set to "0".
*17 AC LOSS KEYPAD SOUNDING	N	0 = disable 1 = enable	Must be set to "1" (enabled).
*20 TELEPHONE MODULE PHONE CODE	N	1-9 = first digit of access code * or # = second digit of access code (enter # +11 for "*", or # +12 for "#"). To disable enter 0 for the 1st digit.	Not used. Must be set to "00".
*22 KEYPAD PANIC ENABLES (PARTITION SPECIFIC)	N	0 = disable 1 = enable	Must be set to "000" for partition 1 in fire systems.
*23 MULTIPLE ALARMS (PARTITION SPECIFIC)	N	0 = disable 1 = enable	Must be set to "1" (enabled).
*26 INTELLIGENT TEST REPORTING	N	0 = disable 1 = enable	Must be set to "0" (disable).
*27 TEST REPORT INTERVAL	Y	Enter 0001-9999 for the test report interval in hours. Enter 0000 for test reporting.	Must be set to "0024" (Maximum 24 hours)

Program feature or option	Permitted in UL864? Y/N	Possible settings	Settings permitted in UL 864
∗28 POWER-UP IN PREV. STATE	Y	0 = disable 1 = enable	Must be set to "1" (enable).
∗37 DOWNLOAD COMMAND ENABLES	N	0 = disable 1 = enable	Must be set to "0" for all entries (disable).
∗41 NORMALLY CLOSED OR EOLR (ZONES 3-8)	N	0 = EOLR supervision 1 = N.C. loops	Must be set to "0" (EOLR Supervision).
∗42 DIAL TONE PAUSE	Y	Enter the wait time for dial tone detection: 0 = 5 seconds; 1 = 11 seconds; 2 = 30 seconds.	Must be set to "0" (5 seconds).
∗44 RING DETECTION COUNT	N	Enter 00 to disable ring detection. Enter 01-14 for ring counts of 1-14. Enter 15 to select Answering Machine Defeat Mode	Must be set to "00" (disable).
∗56 DYNAMIC SIGNAL DELAY	Y	Enter 00-15 times 15 seconds.	Must be set to "6" (90 seconds).
∗77 AUTO TRBL RSTR	Y	0 = disable 1 = restore troubles only 2 = restore troubles and fire alarms	Must be set to "1" (restore troubles only).
∗80 ZONE TYPE 9 -10, 14 RESTORE	N	0 = disable 1 = enable	Must be set to "1" (enable) for zone type 9.
1∗12 PROGRAM NOTIFICATION	Y	0 = no 1 = yes	Must be set to "1" (yes).
1∗13 SYS. SENSOR REV. RELAY	N	0=use neither Zone 1 or Zone 2 inputs 1=use Zone 1 input; 2=use Zone 2 input; 3=use Zone 1 and Zone 2 inputs.	Not Used. Must be set to "0".
1∗18 AFFECTS LOBBY (PARTITION – SPECIFIC)	N	0 = disable 1 = enable	Must be set to "0" (disabled) for partition 1.
1∗19 ARMS LOBBY (PARTITION – SPECIFIC)	N	0 = disable 1 = enable	Must be set to "0" (disabled) for partition 1.
1∗22 thru 1∗25 CROSS-ZONING PAIRS (1 – 4)	N	Enter 001-032 Enter 000,000 to disable	Must be set to "000,000" (disabled) for fire zones.
1∗28 RF TX LOW BATTERY SOUND	N	0 = disarmed state only 1 = both armed and disarmed states	Must be set to "1" (both armed and disarmed states).
1∗29 RF TX LOW BATTERY REPORTING	N	0 = disable 1 = enable	Must be set to "1" (enable).
1∗30 RF RCVR CHECK-IN INTERVAL	N	Enter 02–15 times 2 hours (4–30 hours) Enter 00 to disable receiver supervision	Maximum is 02 (4 hours) for fire installations.
1∗31 RF TX CHECK-IN INTERVAL	N	Enter 02–15 times 2 hours (4–30 hours) Enter 00 to disable transmitter supervision	Maximum is 02 (4 hours) for fire installations.
1∗35 ACS DLR ENABLES	N	0 = disable 1 = enable	Not used. Must be set to "0".
1∗44 RF KEYPAD TAMPER DETECTION	N	0 = disable 1 = enable	Not used. Must be set to "0".

Program feature or option	Permitted in UL864? Y/N	Possible settings	Settings permitted in UL 864
1∗45 EXIT DELAY SOUNDING (PARTITION SPECIFIC)	N	0 = disable 1 = enable	Must be set to "0" (disable) for partition 1.
1∗48 RF KEYPAD ASSIGN 1-8=PART. 0=NO	N	0 = none 1-8 = partition number	Not used. Must be set to "0".
1∗49 SUPPRESS TX SUPERV. SOUND	N	0 = disable 1 = enable	Must be set to "0" (disable).
1∗53 DOWNLOAD CALLBACK	N	0 = callback required 1 = no callback required	Must be set to "0" (callback required).
1∗57 ENABLE 5800 RF BUTTON GLOBAL ARM	N	0 = disable 1 = enable	Must be set to "0" (disable).
1∗58 ENABLE 5800 RF FORCE ARM	N	0 = disable 1 = enable	Must be set to "0" (disable).
1∗60 ZONE 5/AUDIO ALARM VER.	N	0 = disable 1 = enable	Must be set to "0" (disable).
1∗72 PRINTER ON-LINE MODE	N	0 = disable 1 = enable	Not used. Must be set to "0".
1∗76 ACCESS RELAY # (PARTITION SPECIFIC)	N	01-96 = relay number 00 = relay not used.	Must be set to "00" (relay not used) for partition 1.
1∗78 EXT. HOME CONTROL EVT	N	1 = extended 0 = limited	Not used. Must be set to "0".
1∗79 HOME CONTROL EVENTS	N	0 = disable 1 = enable	Not used. Must be set to "0" in each entry.
1∗80 LOG-FAULTS & RESTORES	N	0 = disable 1 = enable	Not used. Must be set to "0".
2∗07 AUTO-DISARM DELAY (PARTITION SPECIFIC)	N	00 = no delay. 01-14 times 4 minutes (04-56) delay. 15 = no auto disarming.	Must be set to "15" (no auto disarming) for partition 1.
2∗18 ENABLE GOTO FOR PARTITION (PARTITION SPECIFIC)	N	0 = disable 1 = enable	Must be set to "0" (disable) for partition 1.
2∗22 DISPLAY OTHER FIRE ALARMS (PARTITION SPECIFIC)	N	0 = disable 1 = enable	Must be set to "0" (disable) for partition 1.
2∗23 DISPLAY OTHER BURG & PANIC (INCLUDING CO ALARMS) (PARTITION SPECIFIC)	N	0 = disable 1 = enable	Must be set to "0" (disable) for partition 1.
2∗24 DISPLAY TROUBLES OF OTHER PARTITIONS (PARTITION SPECIFIC)	N	0 = disable 1 = enable	Must be set to "0" (disable) for partition 1.

Program feature or option	Permitted in UL864? Y/N	Possible settings	Settings permitted in UL 864
3*01 EVENT DISPLAY LOCK	N	0 = disable 1 = enable	Must be set to "1" (enable).
3*12 ZN TYPE 18 DELAY USE	N	0 = disable 1 = enable	Must be set to "0" (disable).
3*13 "SUPV" ON OPEN AND SHORT (APPLIES TO ZONE TYPE 18	N	0 = Trouble on open/Supv on short 1 = Supv on open/Supv on short	Must be set to "0".
3*14 W.F. ALARM SILENCE OPT.	N	0 = Silenced by User Code + OFF 1 = Silenced when zone restores	Must be set to "0" (Silenced by User Code + OFF).
3*16 ZONE TYP 17/18 DLY	N	Enter 01-15 times 2 seconds Enter 00 for no delay	Must be set to 00 (no delay).
3*18 EXTENDED DLY FOR TYP 17/18	N	0 = no extended delay 1 = multiply delay by 4	Must be set to 0 (no extended delay).
3*20 TRIG OUTS FUNC SEL	N	0 = remote keypad sounder 1 = keyswitch LEDs	Must be set to 0 (remote keypad sounder).
3*21 MAX ATEMPTS	Y	1-8	Must be set at 3, 4 or 5.
3*50 ZONE TYPES 16-18 REST.	N	0 = disable 1 = enable	Must be set to "1" (enable).
3*60 BELL 2, AUX RLY TIMEOUT	Y	Enter 01-15 multiplied by 2 minutes. 00 = no timeout.	Must be set to "3" (Minimum of 6 minutes).
3*82 BURG FEATURES ENABLED	N	0 = disable 1 = enable	Must be set to "0" (disable).
RESTRICTION FOR FIRE RELAYS	Y	Yes No	Restriction for # 70 must be set to Yes when programming fire relays.

Programming Field Settings for ULC304 Compliance

NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES
This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Signal Receiving Centre and Premise Burglar Alarm Control Units ULC S304, certain programming features or options must be limited to specific values or not used at all as indicated below.

Program feature or option	Possible settings	Settings permitted in ULC S304
*38 PREVENT ZONE XXX BYPASS (PARTITION SPECIFIC)	Enter a zone number (001-032). Enter 000 if all zones can be bypassed.	Must be set to "000" (all zones can be bypassed).
1*58 ENABLE 5800 RF FORCE ARM	0 = disable 1 = enable	Must be set to "0" (disable).
2*03 ULC S304 ENABLE	0 = disable 1 = enable	Must be set to "1" (enabled).
2*08 FORCE-ARM ENABLE (PARTITION SPECIFIC)	0 = disable 1 = enable	Must be set to "0" (disable).

Section 1: General Description

SIA Installations

The VISTA-32BPT is not certified as SIA compliant, but can be programmed for False Alarm Reduction. To program for False Alarm Reduction, follow the SIA Guidelines noted in the applicable programming fields.

About the VISTA-32FBPT

The VISTA-32FBPT is a 2-partition, UL Listed commercial fire and burglary control panels that include the features described below.

Features

Hardwire and Optional Expansion Zones

- Provides 8 hardwire zones.
- Supports up to 16 2-wire smoke detectors each on zone 1 and zone 2 (32 total).
- Automatically resets 4-wire smoke detectors if the Aux Relay is programmed for smoke reset (3*61 = 2).
- Triggers the built-in sounders on other hardwired smoke detectors if one smoke detector annunciates an alarm. This feature requires a System Sensor RRS-MOD.
- Supports up to 24 additional expansion zones using a built-in polling (V-Plex) loop.
- Supports up to 32 wireless zones fewer if using hardwire and/or polling loop zones.

ULC Wireless devices are not ULC Listed and cannot be used in ULC Installations.

Peripheral Devices

- Supports up to 31 addressable devices, (keypads, RF receivers, relay modules, etc.).
- Supervises devices (keypads, RF receivers, and relay modules) and individual relays (up to 32), as well as system zones.

  Keypads
- 6160CR2 keypads for Fire applications
- 6160 keypads for Burglary applications
  (Alpha keypads provide three panic key functions: 1 + ∗ (A), ∗ + # (B), and 3 + # (C).)
- Up to six 6280 Graphic/Touch-Screen keypads for burglary applications.
- AlarmNet Total Connect (Remote Interactive Service) allows access from a wireless smart phone or web browser via any Total Connect 2 compatible AlarmNet device.

UL Use of Remote Interactive Service (Total Connect) is not permitted in UL installations.

NOTE: If using Total Connect Remote Interactive Services, the virtual keypad must be assigned to a burglary partition, and the GOTO feature (program field 2∗18) must be "0" (disabled) for partition 1 (the fire partition) so that the Fire system cannot be accessed remotely. This is the system default setting.

Output/Relay Devices

- 4204 and 4204CF Relay Modules, and 4101SN V-Plex Relay Modules can be used to program up to 96 outputs. Outputs can be activated in response to system events (alarm condition), at a specific time of day, at random times, and manually using the #70 Relay Command Mode.
    a. One additional style-Y supervised Notification Appliance Circuit using a 4204CF.

Other Devices

- The ADEMCO 4146 Keyswitch on any one of the system's two partitions.
- 4286 VIP Module, which allows access to the system from either a remote location or on the premises.

UL The 4286 VIP Module is not Listed for use in a UL installation.

- A Commercial Fire Listed 24VDC Power Supply may be used to power 24V notification appliances.

Arming/Disarming and Bypassing

- Can arm the system with zones faulted (Vent Zone). These zones are automatically bypassed and can be programmed to automatically unbypass when the zone restores.
- Can arm with entry/exit and interior type zones faulted (Arm w/Fault). These zones must be restored before the exit delay expires, otherwise an alarm is generated.

UL/ ULC
- Vent zones cannot be used in UL installations.
- You **must disable** the Force Arm option (used in conjunction with the Arm w/Fault option), in UL and ULC installations.

- Provides global arming capability (ability to arm all partitions the user code has access to in one command).
- Provides the ability to exit an armed premises temporarily without having to disarm and then rearm the system (Quick Exit).

UL Quick Exit is not permitted for use in a UL installation.

- Can be armed in one of three STAY modes or Instant modes, automatically bypassing specific burglary zones regardless of the zone response type.
- Can automatically bypass specific zones if no one exits the premises after arming (Auto-STAY). Auto-STAY will not occur if the system is armed via an RF transmitter, VIP module, scheduling, access control, keyswitch or downloading.
- Can bypass a group of zones with one set of keystrokes.
- Supports Exit Error Logic, whereby the system can tell the difference between a regular alarm and an alarm caused by leaving an entry/exit door open. If the system is not subsequently disarmed, faulted entry/exit zone(s) and/or interior zones are bypassed and the system arms.
- Supports Recent Close report, which is designed to notify the central station that an alarm has occurred within 2 minutes after the exit delay has expired.

Partitioning

- Can control 2 separate areas (partitions) independently, each functioning as if it had its own separate control. All fire zones must be assigned to partition 1.
- Provides a Common Lobby partition, which can be programmed to arm automatically when the last partition is armed, and to disarm when the first partition is disarmed.
- Provides a Master partition (3), used for the purpose of viewing the status of all partitions at the same time.
- Can display fire, burglary, panic, and trouble conditions at all other partitions' keypads (selectable option).

Scheduling

- Can automate system functions, such as arming, disarming, and activation of outputs (e.g., lights).
- Provides access schedules (for limiting system access to users by time).
- Provides an End User Output Programming Mode, allowing the user to control outputs.

ULC Scheduling is currently not approved for ULC applications.

Access Control
- Supports 8 VistaKey modules single-door access control modules
- Supports up to 250 access cards.
- Can store access control events in the event log.

UL The access control function is not Listed for use in UL Commercial Fire Installations.

System Communication
- Supports approved ECP Communication Devices that can send Contact ID messages (e.g., Alarmnet GSM, i-GSM, and Internet communicators)
- Supports the 5140DLM optional backup dialer for the second phone line.
- Provides supervision of the phone lines (main and backup)
- Supports ADEMCO Contact ID; ADEMCO 10-Digit Contact ID and 4+2 Express formats.

The system is shipped defaulted for Contact ID communication. It is the only format capable of uniquely reporting all 32 zones, as well as openings and closings for all 75 users. This requires central stations to be equipped with receivers that support the complete set of Contact ID report codes, such as the MX8000 or 7810iR-ent. If you need to update your MX8000 receiver, contact your distributor.

- Provides the Dialer Queue Report in the event of a loss of communication between the dialer and the central station (i.e., telco loss). The total events that will be queued up are 128 (91 Burg + 37 Life Safety). A Dialer Queue Overflow report (E354) will be sent if the report queue goes beyond its limits. Please note: Life Safety includes Fire, CO, 24 HR Silent/Audible/Auxiliary alarms, and Duress. Life Safety events may go beyond 37 (up to 128) if there are no Burg events in the queue. If all dialer attempts are exhausted before communication to the central station is restored, the queue will be cleared.

Downloading
- Supports upload and download capability. (Downloading must be site-initiated for Commercial Fire installations.)
- Can periodically and automatically perform a scheduled download.

UL Remote downloading is not permitted in UL installations. A technician must be on-site in order to test the system after any system programming is changed.

Event Log
- Provides an event log (history log) that can store up to 512 events.
- Can view the event log on an alpha keypad or a graphic touchscreen keypad.

V-Plex® Smart Contact Technology
- <u>Automatic suppression of fault/restores when disarmed:</u> Smart V-Plex® sensors such as the DT7500SN, and IS2500SN polling loop motion detectors can be set to stop sending fault/restore signals while the partition is disarmed. This prevents the polling loop from slowing down due to high bus activity in busy areas. The feature is enabled by Zone in Zone Programming.

  When enabled, within about 5 minutes of program exit, the panel will send the command to the Smart Contacts to turn off their LED and stop sending faults/restores to the system. (The DT-7500SN and IS2500SN will turn off their LED unless the LED DIP switch is set to ON, in which case the LED will always remain enabled.)

- <u>Automatic Test Mode entry:</u> Upon entering Code + 5 (Burglary Walk Test Mode), the panel will again tell the PIR to enable the LEDs and start sending faults/restores. The LED will remain enabled until the Burglary Walk Test mode is exited. Removing and replacing the cover of the DT7500SN and IS2500SN, or power-cycling these sensors will also put them in the walk test mode, enabling the LEDs and sending of faults/restores for 10 minutes.

  NOTE: Regardless of Smart Mode, Tamper and Supervision Failures are sent without delay.

- <u>PIR Anti-Mask:</u> Some motion detectors such as the DT7500SN have an "Anti-Mask" feature that will alert the panel when the lens has been blocked. For DIP switch settings related to this feature, refer to the motion detector documentation. Anti-Mask can be enabled in zone programming if a zone type 04 (interior) or 10 (interior with delay) and input type 06 (serial poll) are selected. In the event masking occurs, the message "PIR masked" will be displayed on the keypad, and a trouble report code is used to report the masking.

- <u>Smoke Detector Maintenance:</u> Provides Maintenance Signal support for certain smoke detectors, such as the 5193SD and 5193SDT V-Plex detectors, as well as the 5808W3.

  Operation: When programmed as a "Smart Contact" in zone programming, a sensor which is capable of providing a high or low sensitivity condition (e.g., sensor is dirty) will trigger a message on the keypad, a dialer report, and an event log entry. The display message will indicate HSENSxxx or LSENSxxx, where xxx is the zone number.

Fire Walk-Test Mode

- Provides an automatic test of integrated V-Plex devices that have the automatic test feature.
- Can display all fire zones that remain untested.
- Can log test results in the event log.
- Can report the test results to the central station.

Additional Features

- Provides a Battery Protection feature that prevents the battery from going into deep discharge in case of a prolonged AC power outage.
- Provides two style-Y supervised Special Application Notification Appliance Circuits.
- Supervision of Notification Appliance Circuits, phone lines, keypads, RF receivers, and output devices
- Provides an auxiliary relay (form C) that can activate alarms troubles/supervisories, reset 4-wire smoke detectors, or as a battery saver (removes power from non-critical loads 4 hours after AC power loss).
- Provides up to 60 installer-defined, custom words that can be used for zone descriptors.
- Provides 32 keypad macro commands (each macro is a series of keypad commands of up to 32 keystrokes) using the A, B, C, and D keys by partition.
- Provides cross-zone capability, which helps prevent false alarms by preventing a zone from going into alarm unless its cross-zone is also faulted within a 5-minute period (does not apply to Fire zones).
- Contains a built-in User Manual, which provides the end user with a brief explanation of the function of a key when the user presses any of the function keys on the keypad for 5 seconds.
- Provides trigger outputs, which may interface with Communication equipment or other devices such as a keyswitch, a Honeywell access control system, or an automation system.
- Provides an option to have trouble and supervisory conditions automatically clear from the display when the zone returns to the ready/normal state (entry of Code + OFF is not required).

At least one 2-line alpha keypad (6160/6160CR-2) must be connected to the system for programming (if you are 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.

Guidelines for Wiring a System

- The installer must keep certain guidelines in mind while installing a system. The Vista-32FBPT contains an ECP bus and a polling loop bus for connecting Fire and Burglary devices. When installing both Commercial Fire and Burglary devices, all Fire devices must be isolated from the Burglary devices on each bus. This is accomplished by using an ECP isolator on the ECP bus, and a V-Plex VSI on the V-Plex loop, as shown in Figure 1-1.

- Additionally, in Commercial Fire installations, the primary keypad must be connected to Keypad Port 2 mounted within 20 feet of the control panel, and wired in conduit.

- Synchronization is required on devices connected to an individual alarm output. Each NAC can have its own synchronization module in order to synchronize devices on that output, and those devices should be located in the same visual/audible area. No synchronization is required between two outputs/individual sync modules.

- Notification Appliance Circuits (NAC) must be wired and isolated or Riser Conductors must be installed in accordance with the survivability from attack by fire requirements in the National Fire Alarm Code, NFPA 72.

ISOLATION OF FIRE AND BURGLARY DEVICES ON THE POLLING LOOP

PANEL AUX POWER

4297 LOOP EXTENDER
INPUT POLLING
OUTPUT POLLING

PIR — RED +, BLACK –

4101SN — RED +, BLACK –

4208SN 4208U — RED +, BLACK –

4193 — RED +, BLACK –

OPTIONAL POWER FROM ECP ISOLATOR (+) AND (-) OUPUTS

DO NOT CONNECT IF USING OPTIONAL AUX POWER

POLLING LOOP
+ 28 – 29

VPLEX-VSI (IF USED)
INPUT POLLING
OUTPUT POLLING

4190SN 4193SN — RED +, BLACK –

5193SDT — RED +, BLACK –

4208SN 4208SNF 4208U — RED +, BLACK –

5193SDT

5193SDT

AUX POWER CANNOT BE USED ON "FIRE LOOP"

FIRE | BURGLARY

ISOLATION OF FIRE AND BURGLARY DEVICES ON THE ECP BUS

BURGLARY KEYPAD 6160
YELLOW DATA, GREEN DATA, BLACK –, RED +

4204
YELLOW DATA, GREEN DATA, BLACK –, RED +

ECP ISOLATOR
YELLOW DATA, GREEN DATA, BLACK –, RED +

VISTA-32FBPT PANEL
ECP BUS
11 12 13 14

KEYPAD PORT 2

USE CABLE 4142TR (SUPPLIED)
YELLOW DATA
GREEN DATA
BLACK –
RED +

PRIMARY KEYPAD 6160CR-2

COMMUNICATORS — RED +, BLACK –, GREEN DATA, YELLOW DATA

RF RECEIVER — RED +, BLACK –, GREEN DATA, YELLOW DATA

4204CF — RED +, BLACK –, GREEN DATA, YELLOW DATA

FIRE | BURGLARY

NOTES:
1. FOR CLARITY OF THIS DRAWING THE ECP BUS IS SHOWN USING A T-TAP FOR MODULE CONNECTION. ACTUAL T-TAP CONNECTIONS MUST BE CONTAINED WITHIN THE ENCLOSURE.

2. WHEN USING A 4297 FOR ISOLATION, ISOLATED DEVICES MUST BE EITHER ALL FIRE OR ALL BURGLARY. NO COMBINATION OF FIRE/BURGLARY DEVICES IS PERMITTED.

3. POLLING LOOP TERMINAL 29 CAN BE USED FOR POLLING LOOP DEVICES THAT ARE USING **ONLY** 2-WIRE CONNECTIONS.

V32FBPT-001-V0

Figure 1-1: Isolating Fire Devices from Burglary Devices
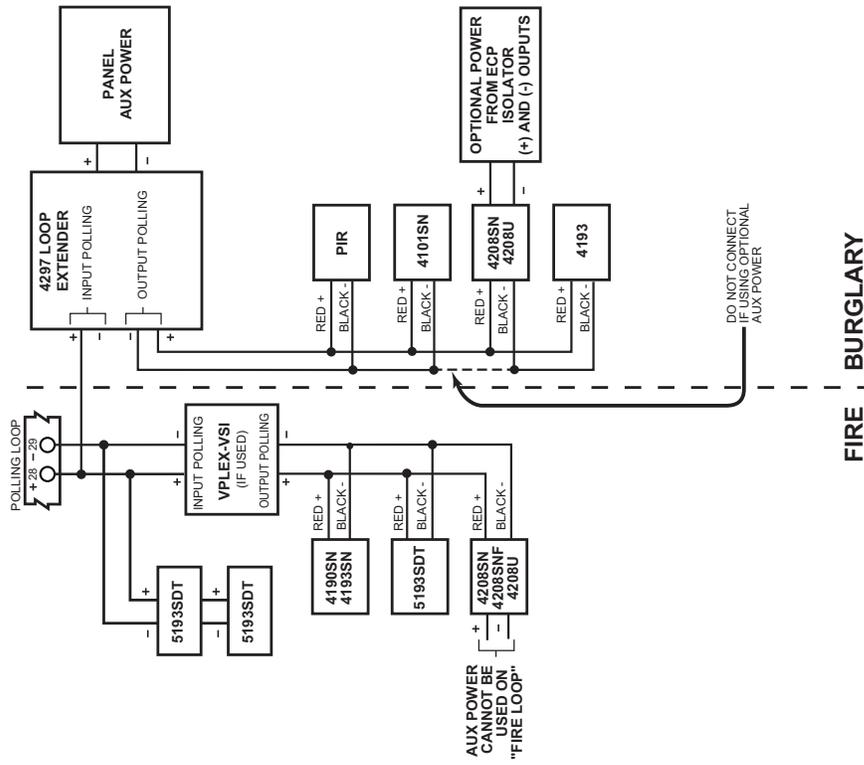
Theory of Partitioning

This system provides the ability to arm and disarm up to two different areas, as if each had its own control. These areas are called partitions. A Partitioned system allows the user to disarm certain areas while leaving other areas armed, or to limit access to certain areas to specific individuals. Each system user can be assigned to operate any or all partitions, and can be given a different authority level in each.

Before anything can be assigned to those partitions, you must first determine how many partitions (1-2) are required. Following are some facts you need to know about partitioning.

Keypads

Each keypad must be given a unique "address" and be assigned to one partition. It can also be assigned to Partition 3 if Master keypad operation is desired. (See "Master Keypad Setup and Operation" later in this section.)

UL In Commercial Fire installations, field 2∗18 (Log on from other partitions) must be disabled for partition 1.

Zones

Each zone must be assigned to one partition. The zones assigned to a partition will be displayed on that partition's keypad(s).

UL All fire zones must be assigned to partition 1 to ensure that all Fire Test modes operate correctly.

Users

Each user may be given access to one or more partitions. If a user is to operate more than one partition and would like to arm/disarm all or some of those partitions with a single command, the user must be enabled for Global Arming for those partitions (when entering 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 he/she wants to log on to from another.

A partition can be selected as a "common lobby" partition, and other partitions can affect this partition by causing arming/disarming of this partition to be automated (see "Common Lobby Logic" later in this section).

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 options, see the *Programming Guide*.

1. Determine how many partitions the system will consist of (programmed in field 2∗00).
2. Assign keypads to partitions (*Device Programming* in the *#93 Menu Mode*).
3. Assign zones to partitions (*Zone Programming* in the *#93 Menu Mode*).
4. Confirm zones are displayed at the keypad(s) assigned to those partitions.
5. Assign users to partitions.
6. Enable the GOTO feature (program field 2∗18) for each partition a multiple-access user can log on to (alpha keypad only).
7. Program partition-specific fields) (see the *Programming Guide*).

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 in a medical building where there are two doctors' offices and a common entrance area (see example that follows explanation).

The Common Lobby feature employs logic for automatic arming and disarming of the common lobby. Two programming fields determine 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 (must be programmed by partition)

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

a. When the first partition that affects the lobby is disarmed, the lobby is automatically disarmed.

b. The common lobby cannot be armed unless every partition selected to affect the lobby is armed.

1∗19   Arms Lobby (must be programmed by partition)

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

a. The common lobby cannot be armed unless every partition selected to affect the lobby is armed.

b. Arming a partition that is programmed to arm the lobby causes 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" is displayed.

> You cannot select a partition to "arm" the lobby unless it has first been selected to "affect" the lobby. Do not enable field 1∗19 without enabling field 1∗18.

The following chart sums up how the common lobby partition will operate.

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

Example

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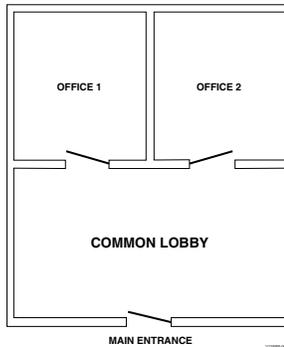
User #1 has access to Office #1 and the Common Lobby.

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.

NOTE: In the tables below, the notations in parentheses ( ) indicate the current status of the other partition when the user takes 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, you would want to program a partition to affect and arm the lobby if the users of that partition are expected to be the last to leave the building.

> Do not assign partition 1 as the common lobby if fire zones are being used in the system. All fire zones must be assigned to partition 1 to ensure all Fire Test modes operate correctly.

How User Access Codes Affect the Common Lobby
Codes with Global Arming

If a code is given "global arming" when it is defined (see the *SECTION 6: User Access Codes*), the keypad prompts the user to select the partitions they want to arm. Only the partitions the user has access to are displayed. This allows the user to choose the partitions to be armed or disarmed, and so eliminates the "automatic" operation of the lobby. Keep in mind, however, that if a user attempts to arm all, and another "affecting" partition is disarmed, the user cannot arm the lobby, and the message "UNABLE TO ARM LOBBY PARTITION" is displayed.

Codes with Non-Global Arming

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

Other Methods of Arming/Disarming

Common Lobby logic remains active when arming or disarming 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 a user arms or disarms remotely (through Compass downloading software), the lobby does 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 automatically arm and/or disarm partitions, the common lobby partition does not automatically follow another partition that is programmed to arm or disarm the lobby. The lobby partition must be scheduled to arm/disarm and must be scheduled as the last partition to arm.

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

Master Keypad Setup and Operation

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

Assigning any keypad to Partition 3 in *Device Programming* in the *#93 Menu Mode* (*Vista-32FBPT Programming Guide*) makes that keypad a Master keypad. A Master keypad reflects the status of the entire system (Partitions 1-2) on its display at one time. This is useful because it eliminates the need for a building security officer to have to log on to various partitions from one partition's keypad to find out where an alarm has occurred.

> **UL** In Commercial Fire installations, field 2∗18 (Log on from other partitions) must be disabled for partition 1.

The following is a typical display:

```
S Y S T E M   1 2
S T A T U S   R N
```

Possible status indications include:

A = Armed Away	**S** = Armed Stay	**M** = Armed Maximum	**C** = Comm Fail
I = Armed Instant	**R** = Ready	**N** = Not Ready	
B = Bypassed/Ready	**∗** = Alarm	**T** = Trouble	
F = Fire Alarm	**P** = AC Power Failure	**L** = Low System Battery	

To obtain more information regarding a particular partition, enter [∗] + Partition No. (e.g., [∗] + [2]). This allows viewing only of that partition. In order to affect that partition, the user must use a code that has access to that partition. Also, in order for a user of any partition to log on to Partition 3 to view the status of all partitions, that user must have access to all partitions. Otherwise, access is denied.

The following is displayed for a fault condition on Zone 2 (Loading Dock Window) on Partition 1 (Warehouse) when a user logs on from a keypad on Partition 2:

```
WHSE  DISARMED
HIT ∗ FOR FAULTS
```

Pressing [∗] causes the following display to appear at Partition 1's keypad(s):

```
FAULT  02   LOADING
     DOCK  WINDOW
```

Additional zone faults are displayed one at a time. To display a new partition's status, press [∗] + Partition No.

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

Press [∗] + [0] or [∗] + [3] to return to the master partition. Otherwise, if no keys are pressed for 2 minutes, the system automatically returns to the master partition

The sounder on a Master keypad reflects the sound of the most critical condition on all of the partitions. The priority of the sounds, from most to least critical, is as follows:

1. Pulsing fire alarm sounds
2. Steady burglar alarm sounds
3. Trouble sounds (rapid beeping)

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 panics 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.

Priority of Displays for Multi-Partition

This table shows the priority of displays if more than one of these conditions exists at the same time.

Priority	Description	Display		Priority	Description	Display
1	Fire Alarm	**F**		8	Not Ready	**N**
2	All Other Alarms	**∗**		9	Ready	**R**
3	AC Loss	**P**		10	Armed STAY	**S**
4	Comm Fail	**C**		11	Armed AWAY	**A**
5	System Low Battery	**L**		12	Armed INSTANT	**I**
6	Trouble	**T**		13	Armed MAXIMUM	**M**
7	Bypass	**B**				

Section 3: Installing the Control

• •

This section describes the procedures for mounting and wiring the control panel and all the peripheral devices.

Mounting the Control in the Standard Cabinet for Commercial Fire only Applications

If you are installing a Vista-32FBPT in the Fire-only cabinet with the internally-mounted transformer, follow the steps below.

Step	Action
1	Before mounting 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.**
2	Using fasteners or anchors (not supplied), mount the control cabinet to a sturdy wall in a clean, dry area that is not readily accessible to the general public. The back of the cabinet has four holes for this purpose.

Installing the Cabinet Lock

To install the lock, perform the following steps:

Step	Action
1	Remove the cabinet door, and the lock knockout from the door. Insert the key into the lock (see Figure 3-1).
2	Position the lock in the hole, making certain that the latch will make contact with the latch bracket when the door is closed.
3	When correctly positioned, push the lock until its snap tabs hold it securely.

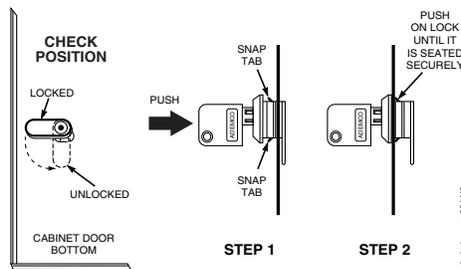Use a Honeywell No. K4445 Lock (supplied).

Figure 3-1: Installing the Lock

Commercial Fire Guidelines

For Commercial Fire installations, the following requirements apply (See Figure 3-2).

• System components mounted inside the cabinet must be placed so that all power-limited wiring is separated from all non-power-limited wiring (AC and battery) by a minimum of ¼-inch (6.4mm).

• Non-power-limited wiring that exits the control panel (i.e., transformer wiring) must be run in conduit.

• All unused knockouts must be plugged.

• All wiring that exits the control panel must be strain-relieved (e.g., tie-wrapped).
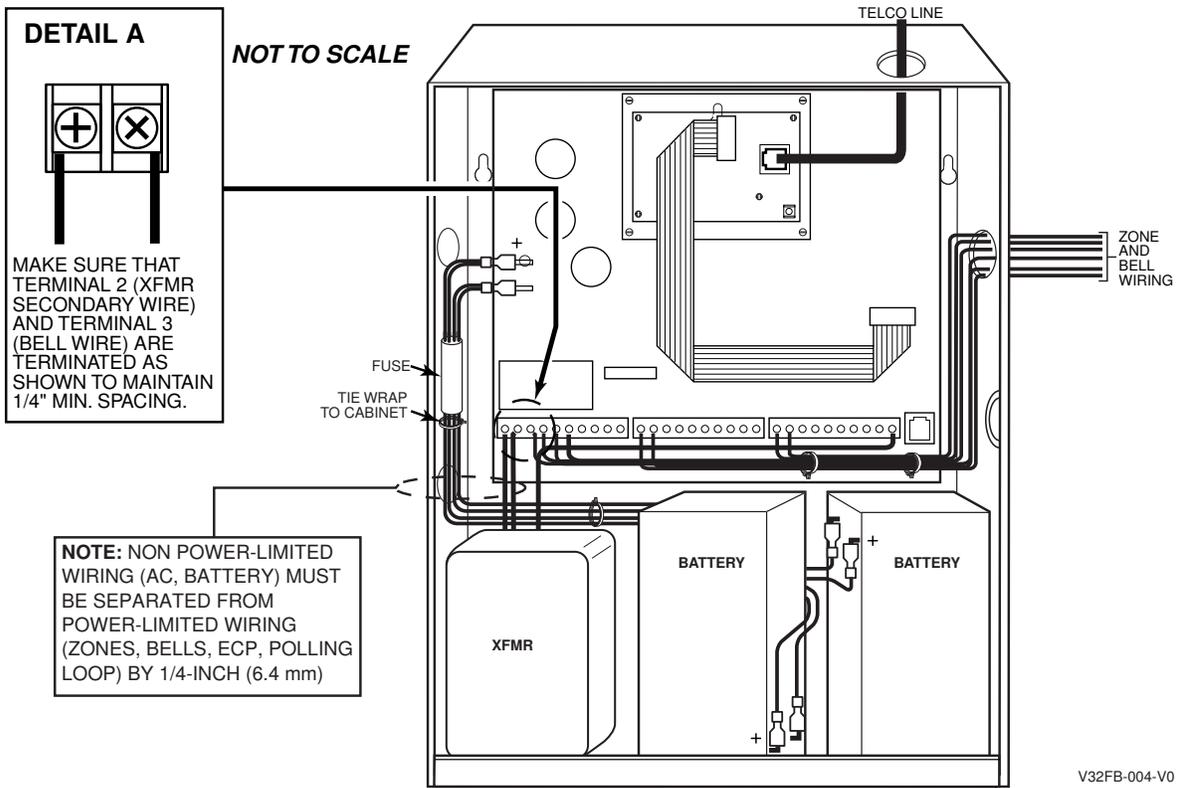
DETAIL A

NOT TO SCALE

MAKE SURE THAT
TERMINAL 2 (XFMR
SECONDARY WIRE)
AND TERMINAL 3
(BELL WIRE) ARE
TERMINATED AS
SHOWN TO MAINTAIN
1/4" MIN. SPACING.

NOTE: NON POWER-LIMITED
WIRING (AC, BATTERY) MUST
BE SEPARATED FROM
POWER-LIMITED WIRING
(ZONES, BELLS, ECP, POLLING
LOOP) BY 1/4-INCH (6.4 mm)

Figure 3-2: Separation of Circuits

Installing the Control's Circuit Board

To install the circuit board in the cabinet, perform the following steps:

Step	Action
1	Install the nylon standoffs (supplied) into the top corner holes of the mounting plate (Figure 3-3, Detail A.) Insert the top of the circuit board onto the two standoffs at the top of the mounting plate.
2	Place the board flat and secure to the mounting plate with the three accompanying screws and spacers as shown (Detail B.)

NOTES:

• Make sure that the mounting screws are tight. This ensures that there is a good ground connection between the PC board and the cabinet.

• Dress field wiring away from the microprocessor (center) section of the PC board. Use small holes in the sidewalls of the cabinet for anchoring field wiring using tie wraps (Figure 3-3).
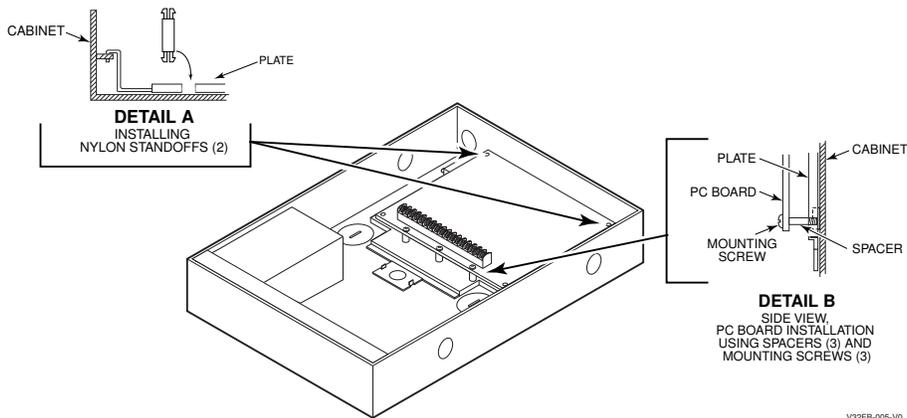

Figure 3-3: Mounting the PC Board

Mounting the Control in the Attack-Proof Cabinet (Suitable for Commercial Fire/Commercial Burglary Applications)

If you are installing a Vista-32FBPT in the attack-proof cabinet with the external transformer, follow the steps below.

Step	Action
1	Before mounting 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.**
2	Using fasteners or anchors (not supplied), mount the control cabinet to a sturdy wall in a clean, dry area that is not readily accessible to the general public. The back of the cabinet has four holes for this purpose.

Installing the Cabinet Lock

To install the lock, perform the following steps:

Step	Action
1	Remove the cabinet door, and the lock knockout from the door. Insert the key into the lock (see Figure 3-1).
2	Position the lock in the hole, making certain that the latch will make contact with the latch bracket when the door is closed.
3	When correctly positioned, push the lock until its snap tabs hold it securely.

Use a Honeywell No. K4445 Lock (supplied).

UL   To provide certificated burglary service for UL installations, refer to the special requirements and *Figure 3-4 Cabinet Attack Resistance Considerations* to follow. **NOTE:** A COM-UL attack-proof cabinet must be used with the Vista-32FBPT for Commercial Fire/Commercial Burglary applications. No other attack-proof cabinet may be used.

Mercantile Premises Listing Guidelines

- The panel door must be supervised. Mount the clip-on tamper switch (supplied) to the cabinet's right side wall, and wire it to zone 6.
- Assign zone 6 to a burglary partition. Program it for day trouble/night alarm (zone type 5) when only one burglary partition is used. Program it for 24-hr. audible alarm (zone type 7) when more than one burglary partition is used. Enable field 3*17 so that the system responds to a ground fault in accordance with its zone type rather than a ground fault response.
- All wiring between the transformer and panel must be run in conduit. Remaining wires do not need to be run in conduit.
- All unused knockouts must be plugged using the disc plugs and carriage bolts (supplied), as indicated in Figure 3-2.
- Fasten the cabinet door to the cabinet backbox using the 15 one-inch-long Phillips-head screws (supplied) after all wiring, programming, and checkout procedures have been completed.
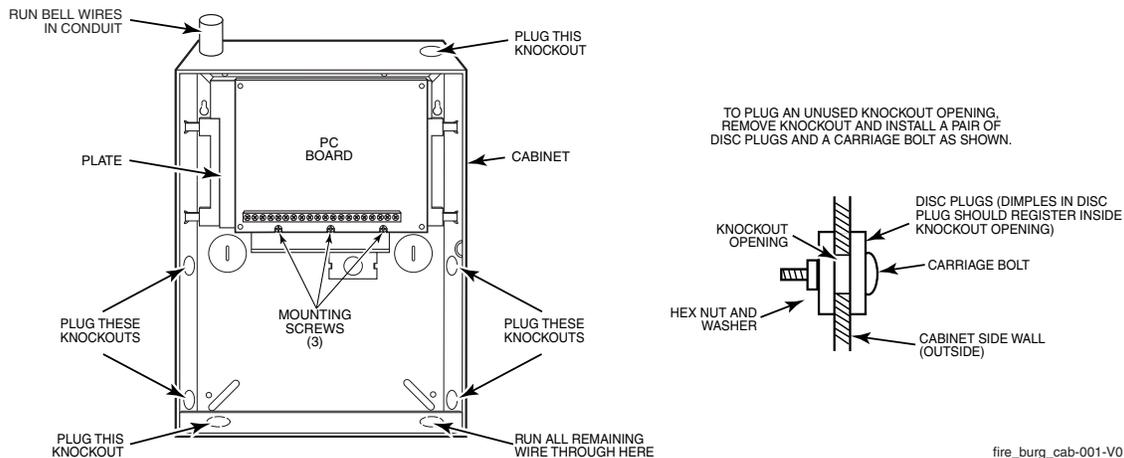

Figure 3-4: Cabinet Attack Resistance Considerations

Mercantile Safe and Vault Listing Guidelines

- Follow the guidelines given above for Mercantile Premises listing.

- For safe and vault installations, a Listed tamper switch, must be installed on the cabinet backbox to protect the cabinet from being removed from the wall. This device must also be connected to zone 6.

Commercial Fire Guidelines

For Commercial Fire installations, the following requirements apply (See Figure 3-5).

- System components mounted inside the cabinet must be placed so that all power-limited wiring is separated from all non-power-limited wiring (AC and battery) by a minimum of ¼-inch (6.4mm).
- Non-power-limited wiring that exits the control panel (i.e., transformer wiring) must be run in conduit.
- All unused knockouts must be plugged.
- All wiring that exits the control panel must be strain-relieved (e.g., tie-wrapped).
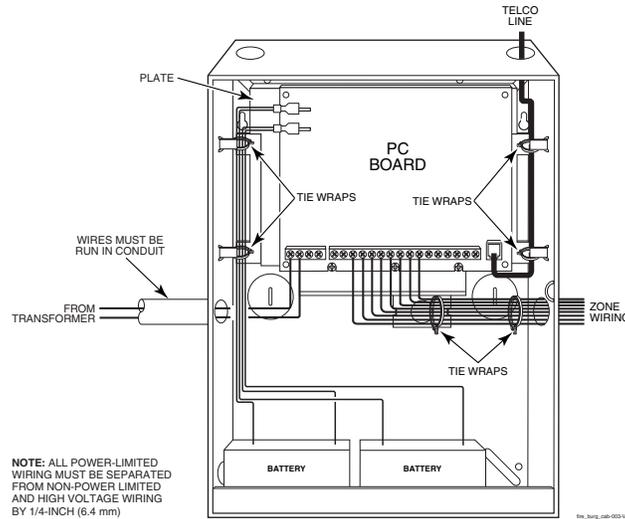

Figure 3-5: Commercial Fire Installation Using Attack-Proof Cabinet

Installing the Control's Circuit Board

To install the circuit board in the cabinet, perform the following steps:

Step	Action
1	Confirm the Mounting Plate is installed securely in the cabinet (Figure 3-6, Detail A). Install the nylon standoffs (supplied) into the top corner holes of the mounting plate (Detail B.) Insert the top of the circuit board onto the two standoffs at the top of the mounting plate.
2	Place the board flat and secure to the mounting plate with the three accompanying screws and spacers as shown (Detail C.)

NOTES:

- Make sure that the tabs on the side of the plate did not pop out during shipping and are inserted into the appropriate slots.
- Make sure that the mounting screws are tight. This ensures that there is a good ground connection between the PC board and the cabinet.
- Dress field wiring away from the microprocessor (center) section of the PC board. Use the mounting plate brackets on the left and right sidewalls of the cabinet for anchoring field wiring using tie wraps (Figure 3-3).These steps are important to minimize the risk of panel RF interference with television reception.
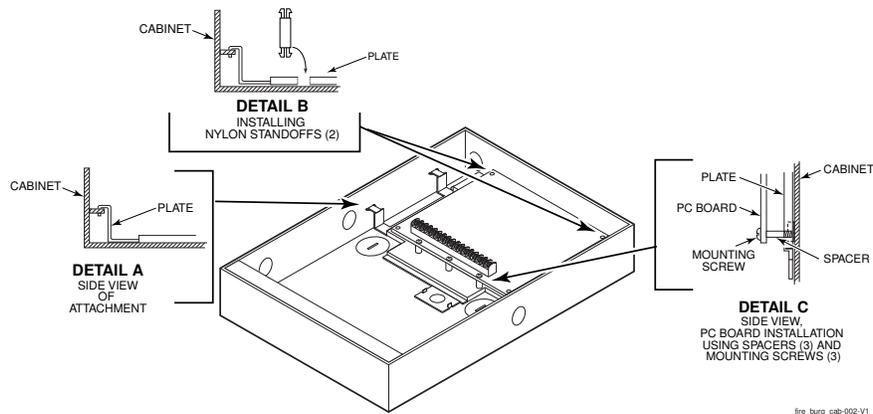
Figure 3-6: Mounting the PC Board in Attack-Proof Cabinet

Installing the Keypads

- Up to 31 addressable keypads (addresses 00-30) may be used. You may need to use an auxiliary power supply if the 1A aux. output is exceeded (for Canada 650mA).
- Use a 2-line alpha display, 6160CR-2 (for fire only) or 6160 (for burglary only).

To wire the keypads, perform the following steps:

Step	Action
1	Determine wire gauge by referring to the Wire Run Length/Gauge table below. <table><tr><th colspan="2">Wire Run Length/Gauge Table</th></tr><tr><th>Wire Gauge</th><th>Length</th></tr><tr><td>#22 gauge</td><td>450 feet</td></tr><tr><td>#20 gauge</td><td>700 feet</td></tr><tr><td>#18 gauge</td><td>1100 feet</td></tr><tr><td>#16 gauge</td><td>1750 feet</td></tr></table>
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.
3	Run field wiring from the control to the keypads (using standard 4-conductor cable of the wire gauge determined in step 1).
4	Connect keypad(s) to terminals 11, 12, 13, and 14 on the control board, see *Figure 3-7*. NOTE: In a Fire Application and when using only one keypad, it must be connected to Keypad Port 2, and must be mounted within 20 feet of the cabinet in conduit. 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.

- The length of all wire runs combined, regardless of the wire gauge, must not exceed 2000 feet when unshielded quad conductor cable is used (1000 feet if unshielded cable is run in conduit, which acts a shield, or if shielded cable is used).
- If more than one keypad is wired to one run, then the above maximum lengths must be divided by the number of keypads on the run (e.g., the maximum length is 225 feet if two keypads are wired on a #22 gauge run).
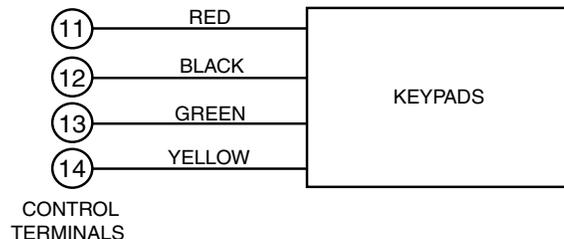

Figure 3-7: Keypad Connections to Control Panel

Commercial Fire Requirements

For commercial fire installations, the primary fire keypad must be installed on panel Keypad Port 2 and mounted within 20 feet of the control panel. External wiring must be run in conduit.

Additionally, you can install supplemental fire keypads and devices on ECP Port 1, using an ECP Isolator to separate all fire wiring from all burglary wiring (see Figure 3-8).
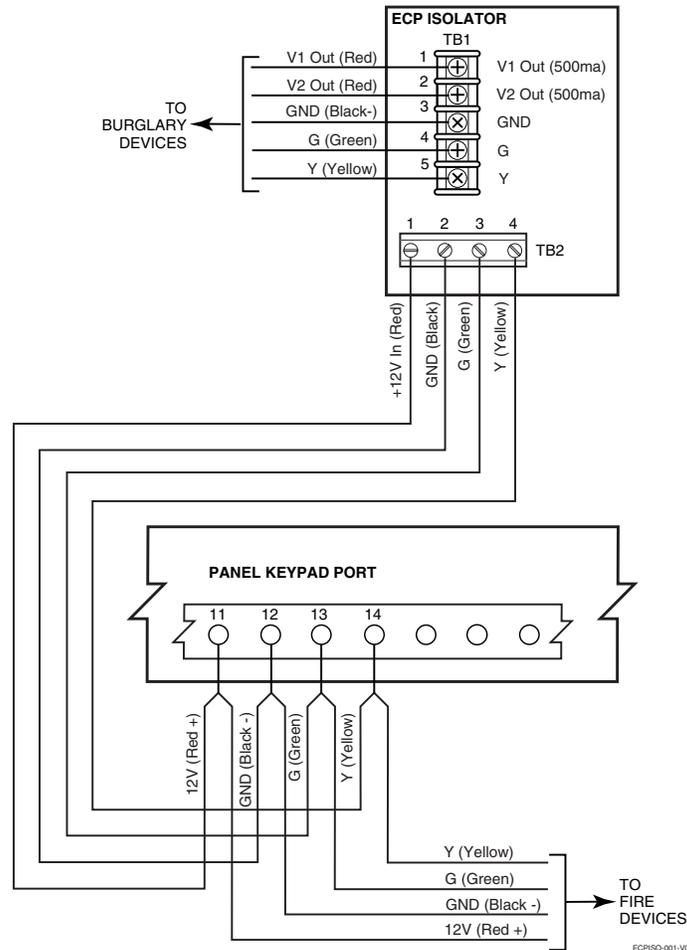
Figure 3-8. ECP Isolator Wiring

Addressing the Keypads

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

Set each keypad for an individual address (00-30) according to the keypad's instructions. Set an alpha keypad for address 00 and other keypads for higher addresses (00 and 01 are enabled in the system's default program). Any keypads set for address 02 and above will appear blank until they are enabled in the system's program. Each keypad must be set for a different address.

> • Do not set any keypads to address 31 (nonaddressable mode). They will interfere with other keypads (as well as other devices) connected to the keypad terminals.
> • If an "OPEN CIRCUIT" message is present on a keypad, data from the control is not reaching the keypad. Please check your wiring.

Supplementary Power Supply for Additional Keypads

When the control's auxiliary power load for all devices exceeds 1A, you can power additional keypads from a regulated 12VDC power supply. Use a UL Listed, battery-backed supply for UL installations. For fire applications, the power supply must be UL1481 Listed.

Connect the additional keypads as shown in *Figure 3-9*, using the keypad wire colors shown. Be sure to observe the current ratings for the power supply used.

UL For UL commercial fire and burglary installations, no more than one wire per terminal may be connected. Use only 14-22AWG wire.

- Make connections directly to the screw terminals as shown in *Figure 3-9*.
- Be sure to connect the negative (–) terminal on the power supply unit to terminal 7 (**–**) on the control.
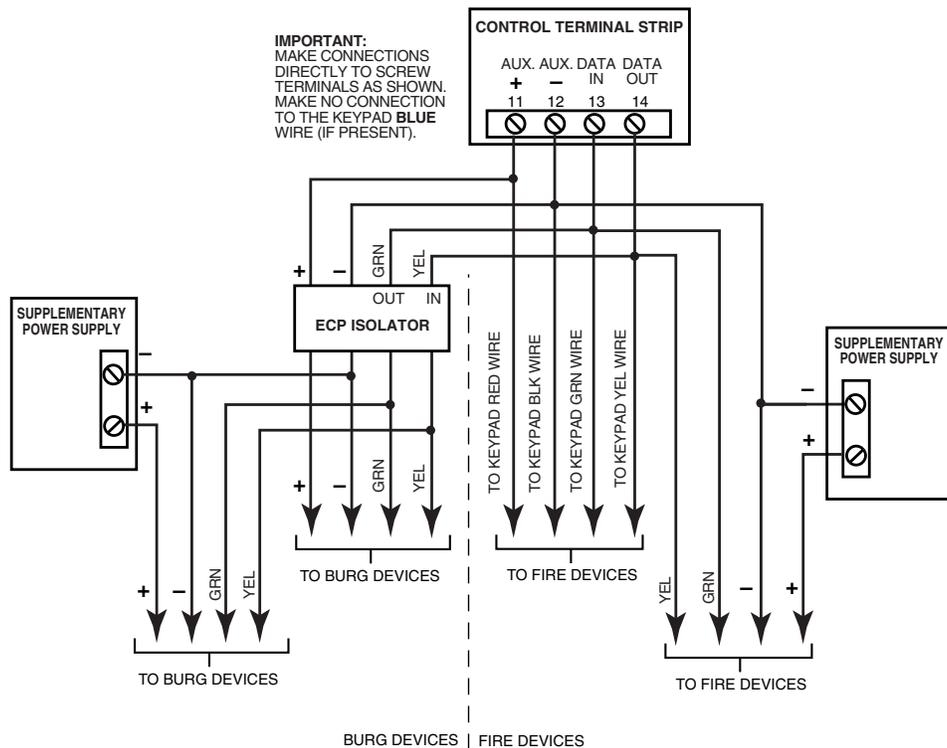
Figure 3-9. Using a Supplementary Power Supply

Installing External Sounders

The VISTA-32FBPT provides two Notification Appliance Circuits for operating fire and burglary alarm notification appliances. Each circuit is rated as Special Application for Fire and 10VDC – 14VDC, 1.7A max. power-limited for Burglary.

NOTE: The total alarm current drawn from Auxiliary Power 1, Auxiliary Power 2, polling loop, Bell 1, and Bell 2 cannot exceed 2.3A (for Canada 1.95A) for battery-independent operation.

The outputs have the following options:

- Selectable to activate by individual zone assignments
- Selectable for confirmation of arming ding.
- Selectable to chime when entry/exit or perimeter zones are faulted.
- Selectable for no timeout or timeout of 2-30 minutes.

You may use a Commercial Fire Listed 24VDC Power Supply to convert one or both VISTA-32FBPT 12VDC, 1.7A style-Y supervised Special Application Notification Appliance Circuits to 24V, style-Y supervised, Special Application Notification Appliance Circuits.

Notification Appliance Circuit Supervision

The VISTA-32FBPT monitors the Notification Appliance Circuits wiring for open and short circuit faults while the output is inactive. The system provides a trouble indication (Zone 970 Bell 1; 971 Bell 2) when an open occurs. When a short occurs between the Bell (+) and Bell (-) terminal wiring, or between the Bell (+) terminal wiring and earth ground the system provides a trouble indication (972 Earth Ground).

The VISTA-32FBPT indicates the trouble condition regardless of whether the system is armed or disarmed. The zone displays on the keypads, reports to the event log, and transmits to the central station (if programmed) on Partition 1. The trouble is cleared from the display by entering the user code + OFF.

Synchronization Requirements for Commercial Fire

Notification Appliance Circuit outputs must be wired to a Sync Module if more than one device is used. Follow instructions provided with Sync Module. Be sure to use the compatible Sync Module for the Alarm Indicating Device selected.

MANUFACTURER	SYNC MODULE MODEL NUMBER
GENTEX	AVSM
SYSTEM SENSOR	MDL
WHEELOCK	DSM

Compatible Alarm Indicating Devices

ALARM INDICATING DEVICE TYPE	MANUFACTURER	MODEL #
UL listed Grade A Bell in Housing	Honeywell/ADEMCO	AB12M
RX7 UL Indoor Sounder, 12V	ADT	875936B
Horn Strobe 2w	GENTEX	GEC3-12, GES3-12, GEH-12
Horn Strobe 2w	GENTEX	GEC3-12, GES3-12, GEH-12
Horn Strobe 4w	GENTEX	GEC3-12, GES3-12, GEH-12
Horn Strobe 4w	GENTEX	GEC3-12, GES3-12, GEH-12
Chime, 12/24V, Selectable Tone & Volume, Red	SYSTEM SENSOR	CHR
Chime, 12/24V, Selectable Tone & Volume, White	SYSTEM SENSOR	CHW
Chime/Strobe, 12/24V, Selectable Candela, Tone & Volume, Red	SYSTEM SENSOR	CHSR
Chime/Strobe, 12/24V, Selectable Candela, Tone & Volume, White	SYSTEM SENSOR	CHSW
Horn, 12/24V, Red	SYSTEM SENSOR	HR
Horn, 12/24V, White	SYSTEM SENSOR	HW
Horn, 12/24V, Outdoor, Red	SYSTEM SENSOR	HRK
2-Wire Wall Mount Horn/Strobe, 12/24V, Standard Candela, Red	SYSTEM SENSOR	P2R
2-Wire Wall Mount Horn/Strobe, 12/24V, High Candela, Red	SYSTEM SENSOR	P2RH
2-Wire Wall Mount Horn/Strobe, 12/24V, Standard Candela, Red, Outdoor	SYSTEM SENSOR	P2RK
2-Wire Wall Mount Horn/Strobe, 12/24V, High Candela, Red, Outdoor	SYSTEM SENSOR	P2RHK
2-Wire Wall Mount Horn/Strobe, 12/24V, Standard Candela, White	SYSTEM SENSOR	P2W
2-Wire Wall Mount Horn/Strobe, 12/24V, High Candela, White	SYSTEM SENSOR	P2WH

ALARM INDICATING DEVICE TYPE	MANUFACTURER	MODEL #
4-Wire Wall Mount Horn/Strobe, 12/24V, Standard Candela, Red	SYSTEM SENSOR	P4R
4-Wire Wall Mount Horn/Strobe, 12/24V, High Candela, Red	SYSTEM SENSOR	P4RH
4-Wire Wall Mount Horn/Strobe, 12/24V, Standard Candela, Red, Outdoor	SYSTEM SENSOR	P4RK
4-Wire Wall Mount Horn/Strobe, 12/24V, High Candela, Red, Outdoor	SYSTEM SENSOR	P4RHK
4-Wire Wall Mount Horn/Strobe, 12/24V, Standard Candela, White	SYSTEM SENSOR	P4W
4-Wire Wall Mount Horn/Strobe, 12/24V, High Candela, White	SYSTEM SENSOR	P4WH
2-Wire Ceiling Mount Horn/Strobe, 12/24V, Standard Candela, Red	SYSTEM SENSOR	PC2R
2-Wire Ceiling Mount Horn/Strobe, 12/24V, High Candela, Red	SYSTEM SENSOR	PC2RH
2-Wire Ceiling Mount Horn/Strobe, 12/24V, Standard Candela, Red, Outdoor	SYSTEM SENSOR	PC2RK
2-Wire Ceiling Mount Horn/Strobe, 12/24V, High Candela, Red, Outdoor	SYSTEM SENSOR	PC2RHK
2-Wire Ceiling Mount Horn/Strobe, 12/24V, Standard Candela, White	SYSTEM SENSOR	PC2W
2-Wire Ceiling Mount Horn/Strobe, 12/24V, High Candela, Red	SYSTEM SENSOR	PC2WH
4-Wire Ceiling Mount Horn/Strobe, 12/24V, Standard Candela, Red	SYSTEM SENSOR	PC4R
4-Wire Ceiling Mount Horn/Strobe, 12/24V, High Candela, Red	SYSTEM SENSOR	PC4RH
4-Wire Ceiling Mount Horn/Strobe, 12/24V, Standard Candela, Red, Outdoor	SYSTEM SENSOR	PC4RK
4-Wire Ceiling Mount Horn/Strobe, 12/24V, High Candela, Red, Outdoor	SYSTEM SENSOR	PC4RHK
4-Wire Ceiling Mount Horn/Strobe, 12/24V, Standard Candela, White	SYSTEM SENSOR	PC4W
4-Wire Ceiling Mount Horn/Strobe, 12/24V, High Candela, White	SYSTEM SENSOR	PC4WH
2-Wire Wall Mount Strobe, 12/24V, Standard Candela, Red	SYSTEM SENSOR	SR
2-Wire Wall Mount Strobe, 12/24V, High Candela, Red	SYSTEM SENSOR	SRH
Wall Mount Strobe, 12/24V, Standard Candela, Red, Outdoor	SYSTEM SENSOR	SRK
Wall Mount Strobe, 12/24V, High Candela, Red, Outdoor	SYSTEM SENSOR	SRHK
Wall Mount Strobe, 12/24V, Standard Candela, White	SYSTEM SENSOR	SW
Wall Mount Strobe, 12/24V, High Candela, White	SYSTEM SENSOR	SWH
Ceiling Mount Strobe, 12/24V, Standard Candela, Red	SYSTEM SENSOR	SCR
Ceiling Mount Strobe, 12/24V, High Candela, Red	SYSTEM SENSOR	SCRH
Ceiling Mount Strobe, 12/24V, Standard Candela, Red, Outdoor	SYSTEM SENSOR	SCRK
Ceiling Mount Strobe, 12/24V, High Candela, Red, Outdoor	SYSTEM SENSOR	SCRHK
Ceiling Mount Strobe, 12/24V, Standard Candela, White	SYSTEM SENSOR	SCW
Ceiling Mount Strobe, 12/24V, High Candela, White	SYSTEM SENSOR	SCWH
Horn Strobe 12V, 4W	WHEELOCK	MT-121575W
Horn Strobe 12V, 2W	WHEELOCK	AS-121575W
Strobe 12V	WHEELOCK	RSS-121575W
Horn Strobe 12V, 2W	WHEELOCK	NS-121575W
Horn 12V/24V	WHEELOCK	NH-12/24
Horn 12V	WHEELOCK	AH-12
Horn 12V/24V	WHEELOCK	MT-12/24, MT4-12/24
Bell 12V	WHEELOCK	MB-G6-12, MB-G10-12

Table 3-1: BELL 1 AND BELL 2 MAXIMUM DEVICE RATING

NOTE: To use this table, the device Candela Setting and Horn Setting MUST match what is listed in the Table.

Mfg	Alarm Indicating Device Type	Model	Candela Setting	Horn Setting	Max # of Devices
Gentex	Horn Strobe 12V, 2w	GEC3-12,GES3-12,GEH-12	15	Mech-Temporal	6
Gentex	Horn Strobe 12V, 2w	GEC3-12,GES3-12,GEH-12	75	Mech-Temporal	2
Gentex	Horn Strobe 12V, 4w	GEC3-12,GES3-12,GEH-12	15	Continuous Mech	6
Gentex	Horn Strobe 12V, 4w	GEC3-12,GES3-12,GEH-12	75	Continuous Mech	2
System Sensor	Horn, Strobe12/24V	HR	-	-	38
System Sensor	Horn, Strobe12/24V	HW	-	-	38
System Sensor	Horn, Strobe12/24V	HRK	-	-	38
System Sensor	Horn, Strobe12/24V	P2R	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P2RH	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P2RK	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P2RHK	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P2W	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P2WH	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P4R	15	Temporal - High	10

Mfg	Alarm Indicating Device Type	Model	Candela Setting	Horn Setting	Max # of Devices
System Sensor	Horn, Strobe12/24V	P4RH	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P4RK	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P4RHK	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P4W	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	P4WH	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC2R	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC2RH	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC2RK	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC2RHK	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC2W	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC2WH	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC4R	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC4RH	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC4RK	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC4RHK	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC4W	15	Temporal - High	10
System Sensor	Horn, Strobe12/24V	PC4WH	15	Temporal - High	10
System Sensor	Strobe12/24V	SR	15	Temporal - High	10
System Sensor	Strobe12/24V	SRH	15	Temporal - High	10
System Sensor	Strobe12/24V	SRK	15	Temporal - High	10
System Sensor	Strobe12/24V	SRHK	15	Temporal - High	10
System Sensor	Strobe12/24V	SW	15	Temporal - High	10
System Sensor	Strobe12/24V	SWH	15	Temporal - High	10
System Sensor	Strobe12/24V	SCR	15	Temporal - High	10
System Sensor	Strobe12/24V	SCRH	15	Temporal - High	10
System Sensor	Strobe12/24V	SCRK	15	Temporal - High	10
System Sensor	Strobe12/24V	SCRHK	15	Temporal - High	10
System Sensor	Strobe12/24V	SCW	15	Temporal - High	10
System Sensor	Strobe12/24V	SCWH	15	Temporal - High	10
Wheelock	Horn Strobe 12V, 4W	MT-121575W	15	Continuous/Hi	4
Wheelock	Horn Strobe 12V, 2W	AS-121575W	15	Continuous/Hi	6
Wheelock	Strobe 12V	RSS-121575W	15	na	6
Wheelock	Horn Strobe 12V, 2W	NS-121575W	15	Hi	7
Wheelock	Horn 12V/24V	NH-12/24	na	Hi	80
Wheelock	Horn 12V	AH-12	na	Hi	9
Wheelock	Horn 12V/24V	MT-12/24,MT4-12/24	na	Continuous Horn	10
Wheelock	Bell 12V	MB-G6-12,MB-G10-12	na	na	9
Bell	Bell 12V	AB12M	na	na	9

Supervising the Notification Appliance Circuits

To wire the NAC using the supervision feature, perform the following:

Install a 2K EOL resistor (Model 2EOL, supplied) across the last notification appliance on each Notification Appliance Circuit to be supervised.

Auxiliary Relay Connections

The VISTA-32FBPT provides a built-in Form C relay with contacts rated at 28VAC/VDC, 2.8A. The relay may be programmed (field 3∗61) for one of the following functions:

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

Alarm Activation

(3∗61 = 1 or 4) Steady activation in response to an alarm.

If field 3∗61 = 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 an unsupervised Notification Appliance Circuit for supplementary strobes, sounders, etc. when wired to the Aux Power 1 or a separate power supply, see *Figure 3-10*.

If field 3∗61 = 4, the auxiliary relay remains activated until **User Code + # + 67** is entered. By default, the relay is set to activate on alarm zones 1-8 with no timeout (field 3∗61 = 1).

When field 3∗61 = 1, the auxiliary relay can be programmed to give a brief activation for confirmation of arming ding (field 3∗57) or Chime Mode (field 3∗59).

AUX RELAY FACTORY DEFAULTS
• ACTIVATES FOR ZONES 1-8 ALARMS
(STEADY ALARM OUTPUT).
• NO TIMEOUT.

NOTES:
• USE NON-POLARIZED INDICATING DEVICES.
• WIRING IS NOT SUPERVISED.
• DO NOT EXCEED RATINGS OF THE SUPPLY USED.
IF AUX. PWR. 1 OUTPUT IS USED, THE COMBINED
ALARM CURRENT DRAIN FROM AUX. PWR. 2,
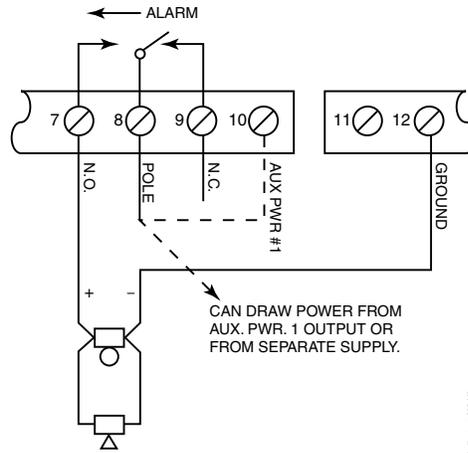BELL 1, AND BELL 2 CANNOT EXCEED 2.3A MAX.

CAN DRAW POWER FROM
AUX. PWR. 1 OUTPUT OR
FROM SEPARATE SUPPLY.

Figure 3-10: Wiring Auxiliary Relay for Alarm Activation

Trouble/Supervisory Activation

(3∗61 = 0) Steady activation in response to any zone or system related trouble condition or to any fire supervisory condition. The auxiliary relay remains activated until all fault conditions have been corrected and a **User Code + OFF** is entered.

4-Wire Smoke Detector Reset

(3∗61 = 2) Momentary (8-second) activation in response to a second entry of a **User Code + OFF** sequence following a fire alarm condition. This interrupts power to 4-wire smoke detectors connected to hardwired zones 1-8 and polling loop zones, allowing the detectors to be reset. Power to the detectors should be wired to the auxiliary relay and to Aux. Power 1 output, see *Figure 3-11*.

Battery Saver

(3∗61 = 3) When this option is selected, the auxiliary relay is normally activated (e.g., N.O. and pole contacts are connected) and de-activates 4 hours after the start of AC Loss. Using this feature, non-critical loads, such as supplementary keypads, can be disconnected from the auxiliary power outputs, allowing a smaller capacity battery to be used. The relay re-activates within a few seconds after the AC power restores.
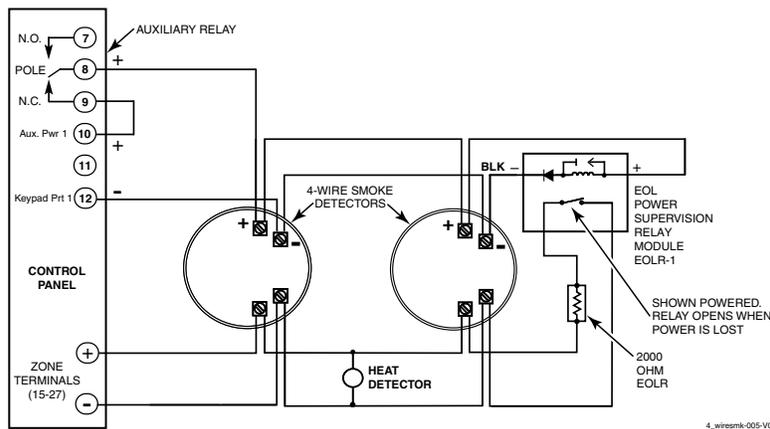

Figure 3-11: Wiring Auxiliary Relay for Smoke Detector Reset

Telephone Line Connections

The VISTA-32FBPT 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

Do not connect the system to telephone lines that require ground start service.

UL
- For Listed fire central station (UL864/NFPA 72) applications, use communications device 7847i alone, the main dialer with the 7847i or use the main dialer with the 5140DLM.
- For listed fire remote station (UL864/NFPA 72) applications, use the main dialer with the 5140DLM.
- Telephone line supervision is required for commercial fire alarm systems.

Main Dialer Connections

ULC The 5140DLM Backup Dialer cannot be used for ULC fire installations.

To connect the main dialer, refer to the *Summary of Connections* diagram and perform the following steps:

Step	Action
1	Connect the main dialer to the telephone company lines using the cable supplied.
2	If the dialer output is connected to telephone lines that have a telephone company MTU installed, cut the blue jumper (W6).

Installing the 5140DLM Backup Dialer

Do not connect the main dialer and the backup dialer to the same telephone company line.

To install the 5140DLM, refer to the *Summary of Connections* diagram and perform the following steps:

Step	Action
1	Mount the 5140DLM to the main PC board shield.
2	Connect the backup dialer to the telephone company lines using the cable supplied.
3	Connect the backup dialer to the J3 connector on the main PC board using the ribbon cable (supplied with the module).
4	Connect the earth ground screw on the 5140DLM to the earth ground terminal (30) on the main PC board using 16AWG wire.
5	If the dialer output is connected to telephone lines that have a telephone company MTU installed, cut the blue jumper on the 5140DLM PC board.

Telephone Line Supervision

If the tip/ring voltage falls below approximately 25 volts (13 volts if the blue jumper is cut) or the handset current is less than approximately 10mA, the supervision circuits for the dialer output will indicate a fault condition. Faults on the phone lines are displayed as zones 974 (main dialer) and 975 (backup dialer).

- To prevent risk of shock, disconnect the phone lines at the telco jack before servicing the panel.
- If the communicator is connected to a telephone line inside a PABX, be sure the PABX has backup power supply that can support the PABX for 24 hours (central station usage) or 60 hours (remote station usage). Many PABXs are not power-backed up, and connection to such a PABX results in a communication failure if power is lost.

- Zone 974 (Primary Dialer Supervision) must be enabled in order for the backup dialer (or communications device, if used) to communicate in the event that the primary dialer fails.
- If a communications device is used as the primary dialer, then its supervisory zone must be enabled (e.g. 8XX, where XX is the device address of the communications device.

UL The telephone line inputs have overvoltage protection in accordance with UL1459.

Reporting Formats

The system is shipped defaulted for Contact ID communication. It is the only format capable of uniquely reporting all 32 zones, as well as openings and closings for all 75 users. This requires central stations to be equipped with receivers that support the complete set of Contact ID report codes, such as the MX8000 or 7810iR-ent. If you need to update your MX8000 receiver, contact your distributor.

The system supports ADEMCO Contact ID; ADEMCO 10-Digit Contact ID and 4+2 Express formats.

Dialer Operation

When only the main dialer is enabled (field 3∗30 = 1, 0), the system attempts to route all messages over the main dialer output. When both the main and backup dialers are enabled (field 3∗30 = 1,1), the panel will Alternate Dialers by pairs (make two attempts to report on the Main Dialer, then make two attempts to report on the Back Up dialer). The panel will continue to do this to the Primary Phone number until it reaches its programmed attempts in 3∗21, then it will do the same to the Secondary phone number. Test Report is always sent on Alternating dialers.

The communicator makes up to 8 attempts to transmit the messages to one or both telephone numbers (primary and secondary), depending on the report routing options programmed. After the 8th attempt, the communicator hangs up and the system displays "COMM FAIL" on the keypad. The number of dialer attempts are programmed in field 3∗21 (default = 8; must be restricted to 3, 4, or 5 if a secondary phone number is programmed).

Wiring Burglary and Panic Devices to Zones 1-8

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).

To wire burglary and panic devices to zones 1-8, connect sensors/contacts to the hardwire zone terminals (15 through 27). Connect N.C. and N.O. devices as follows:

- 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.

Using 2-Wire Smoke Detectors on Zones 1 and 2

Zone 1 and 2 can support up to 16 2-wire smoke detectors each (32 total).

The alarm current on zones 1 and 2 supports only one smoke detector in the alarmed state.

When assigned zone type 9 or 16, the second entry of a User Code + off at a keypad interrupts power to these zones to allow detectors to be reset following an alarm.

Compatible 2-Wire Smoke Detectors

ULC For ULC fire installations, 2-Wire Smoke Detectors must not be connected to the fire transmitter. These devices must be connected to the Fire Alarm Control Panel.

DETECTOR TYPE	MANUFACTURER	MODEL #
2-Wire Photoelectric Smoke Detector	DSC	FSA-210B
2-Wire Photoelectric Smoke Detector w/Heat Detector	DSC	FSA-210BT
2-Wire Photoelectric Smoke Detector	System Sensor	2W-B
2-Wire Photoelectric Smoke Detector w/Heat Detector	System Sensor	2WT-B
2-Wire Ionization Smoke Detector	System Sensor	1451 w/B401B base
2-Wire Photoelectric Low-Profile Smoke Detector	System Sensor	2151 w/B401 base *
Access Reversal Relay/Sync Module	System Sensor	RRS-MOD
2-Wire Photoelectric Smoke Detector	ESL	521B
2-Wire Photoelectric Smoke Detector w/Heat Detector	ESL	521BXT
2-Wire Photoelectric Smoke Detector w/Heat Detector	ESL	429AT

* This model may not be used on zones designated as Zone Type 16: Fire with Verification.

UL
- These smoke detectors are UL Listed for use with the VISTA-32FBPT and are the only 2-wire smoke detectors that may be used.
- A combination of heat detectors and smoke detectors is not permitted on a zone programmed for fire verification.
- Fire installations require the use of a synchronization module to synchronize the sounders and strobes on the system.

Wiring 2-Wire Smoke Detectors to Zones 1 and 2

✔ 2K EOL resistors must be used on fire zones and must be connected across the loop wires of each zone at the last detector.

To wire 2-wire smoke detectors to zone 1 and/or zone 2, perform the following steps:

| Step	Action
1	Select 2-wire smoke detectors from the list of compatible detectors.
2	Connect 2-wire smoke detectors across zone 1 (terminals 15 and 16), and/or zone 2 (terminals 17 and 18) as shown in *Figure 3-12*. Observe proper polarity when connecting the detectors.
3	Connect the EOL resistor at the last detector in the loop across the zone 1 terminals. **The EOL resistor must be connected across the loop wires at the last detector.**
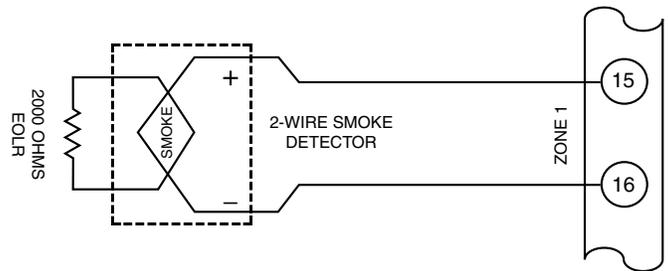
Figure 3-12: 2-Wire Smoke Detector on Zone 1 (for zone 2 use terminals 17 and 18)

Using 4-Wire Smoke Detectors on Zones 1-8

ULC For ULC fire installations, 4-Wire Smoke Detectors must not be connected to the fire transmitter. These devices must be connected to the Fire Alarm Control Panel.

You may use as many 4-wire smoke detectors as can be powered from the panel's Auxiliary Power output without exceeding the output's rating (1A (for Canada 650mA)).

✔ Auxiliary power to 4-wire smoke detectors is not automatically reset after an alarm, and therefore must be momentarily interrupted using the auxiliary relay.

Compatible 4-Wire Smoke Detectors

Use any UL Listed 4-wire smoke detector that is rated for 12VDC operation and that has alarm reset time not exceeding 6 seconds. Some compatible 4-wire smoke detectors are listed below.

DETECTOR TYPE	MANUFACTURER	MODEL #
4-Wire Photoelectric Smoke Detector	DSC	FSA-410B
4-Wire Photoelectric Smoke Detector w/Heat Detector	DSC	FSA-410BT
4-Wire Photoelectric Smoke Detector w/Sounder & Heat Detector	DSC	FSA-410BST
4-Wire Photoelectric Smoke Detector w/Aux. Relay & Heat Detector	DSC	FSA-410BRT
4-Wire Photoelectric Smoke w/Aux. Relay, Sounder & Heat Detector	DSC	FSA-410BRST
End of Line Power Supervision Relay for FSA-410 Series Smoke Detectors	DSC	RM-2
Polarity reversal module for FSA-410 series Smoke Detectors	DSC	PRM-4WC
4-Wire Photoelectric Smoke Detector	System Sensor	4W-B
4-Wire Photoelectric Smoke Detector w/Heat Detector	System Sensor	4WT-B
4-Wire Photoelectric Smoke Detector w/Sounder & Heat Detector	System Sensor	4WTA-B
4-Wire Photoelectric Smoke Detector w/Aux. Relay & Heat Detector	System Sensor	4WTR-B
4-Wire Photoelectric Smoke Detector w/Aux. Relay, Sounder & Heat Detector	System Sensor	4WTAR-B
4-Wire Photoelectric Smoke Detector w/Aux. Relay, Sounder & Isolated Heat Detector	System Sensor	4WITAR-B
4-Wire Photoelectric Air Duct Smoke Detector, Extended Air Speed Range	System Sensor	DH100ACDCLP
4-Wire Ionization Air Duct Smoke Detector	System Sensor	DH100ACDCI

Wiring 4-Wire Smoke Detectors

UL
- Power to 4-wire smoke detectors must be supervised with an EOL device (use a System Sensor EOLR-1 EOL relay module connected as shown in *Figure 3-13*).
- A combination of heat detectors and smoke detectors is not permitted on a zone programmed for fire verification.
- Fire installations require the use of a synchronization module to synchronize the sounders and strobes on the system.

To wire 4-wire smoke detectors to zones 1-8 or polling loop expansion module zones, perform the following steps:

| Step	Action
1	Select 4-wire smoke detectors (see list of compatible detectors shown previously in this section).
2	Connect detectors (including heat detectors, if used) across terminals of the zone selected. All detectors must be wired in parallel. See *Figure 3-13*.
3	Connect the EOLR at the last detector in the loop across the zone's terminals. **You must connect the EOLR across the loop wires at the last detector**.
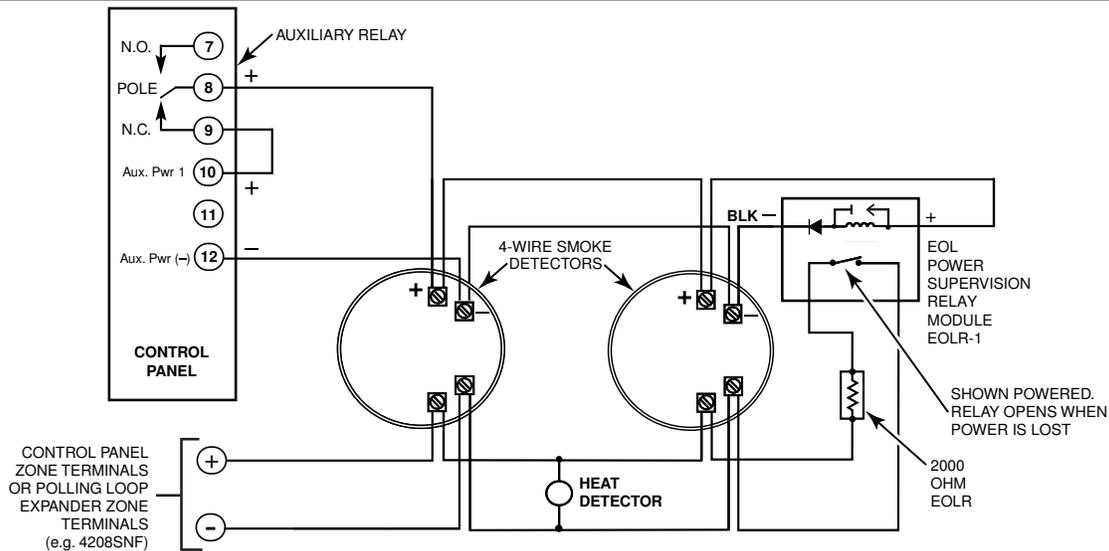
Figure 3-13: 4-Wire Smoke Detectors

Zone 6 Tamper Configuration

Zone 6 may be used as a tamper loop for the VISTA-32FBPT Cabinet Door Tamper Switch.

Assign zone 6 to a burglary partition. Program it for day trouble/night alarm (zone type 5) when only one burglary partition is used. Program it 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).

Tamper Supervision for the Hardwired Zones

The system can be programmed to monitor for either an open condition or a short condition of a tamper switch on zones 1-8. End-of-line supervision is required for this option.

Wiring a Tamper Switch to Zones 1-8

The wiring of the tamper switch depends on whether the tamper switch and the sensor are normally open or normally closed.

- **If you are using a normally closed sensor,** the tamper switch must be normally open. Refer to *Figure 3-14* for the wiring configuration.
- **If you are using a normally open sensor,** the tamper switch must be normally closed. Refer to *Figure 3-15* for the wiring configuration.

To wire a tamper switch on a hardwired zone, connect the EOL resistor at the last detector in the loop across the zone's terminals. **You must connect the EOL resistor at the last detector for proper operation of the tamper supervision.**

NOTE: For the normally closed sensor, program the zone for trouble on short. **For the normally open sensor**, program the zone for trouble on open.

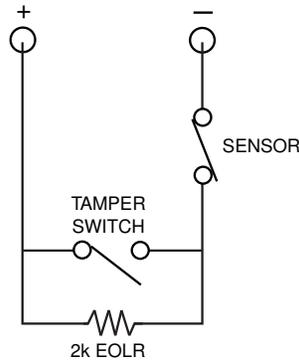**NOTE:** For zones with a response type of 9 or 16 (Fire), the tamper selection must be "0" none.

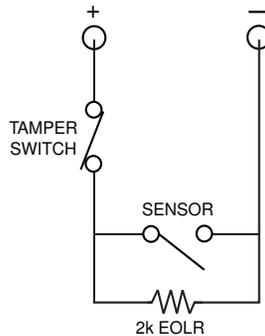*Figure 3-14: Wiring a Normally Closed Sensor Loop for Tamper Supervision*

Figure 3-15: Wiring a Normally Open Sensor Loop for Tamper Supervision

Installing V-Plex Devices

The polling loop provides both power and data to the V-Plex devices, 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 the system uses a 4297 Polling Loop Extender Module).

> Devices that can be programmed via either DIP switches or the built-in unique serial number **must** be set for serial number mode operation.

All devices on the polling loop must be wired in parallel to the [+] and [-] polling loop terminals of the control panel (28 and 29). You can wire from device to device, or have multiple branches connected directly to the control panel in a star configuration. If a module is using optional aux power, do not connect the [-] polling loop terminal to the device. Use the ground from the power source.

> 1. Do not run polling loop wires within 6" of AC power, telephone, or intercom wiring. 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. The IS25000SN and DT7500SN can be programmed as a "Smart Contact" in *Zone Programming*. This prevents those PIRs from displaying faults during the disarmed state.
> 3. Twisted-pair is recommended for all wire runs.
> 4. No more than 64mA may be drawn on any individual wire run.

UL
- The 4190SN right loop must not be used, and the left loop must be EOLR-supervised.
- The 4297 must be powered from the VISTA-32FBPT Auxiliary Power Output.

Compatible Polling Loop Devices

Model Number	Type
4297	Extender Module
4208SN	8 Zone V-Plex Interface
4208SNF	8 Zone V-Plex Class A Interface
269SN	V-Plex Holdup Switch
5193SD	Photoelectric Smoke Detector Device
5193SDT	Photoelectric Smoke Detector w/Heat Detector
4101SN	Serial Number Single-Output Relay Module
4208U	Universal 8-Zone Expander
4209U	Universal Group Zoning Multiplex Module
4959SN	Aluminum Overhead Door Contact
4193SN	Serialized 2-Zone Expander
4193SNP	V-Plex Serialized Interface Module
4293SN	Serialized 1-Zone Expander
4190SN	Serialized 2-Zone Expander
IS2500SN	V-Plex PIR
V-Plex VSI	V-Plex Short Isolator

NOTE: If using the 5193SD/SDT V-Plex smoke detectors the "Smart" option must be selected in zone programming or when they enroll unpredictable results may occur if the smoke goes into a High Sens or Low Sens condition.

To install polling loop devices, perform the following steps:

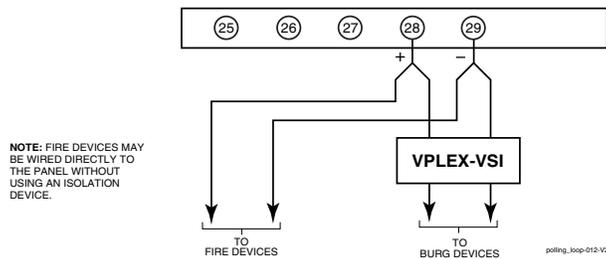| Step	Action
1	Select devices from the list of compatible devices shown previously.
2	Set the DIP switches in the device (if required). Refer to the device's instructions for the DIP Switch Tables.
3	Mount each device in the desired location. Refer to the device's instructions.
4	Run wires from the control panel to each device on the polling loop (see *Figure 3-16*). No individual wire run may exceed the lengths shown in the following table. **Maximum Polling Loop Wire Runs** <table><tr><th>Wire Gauge</th><th>Max. Length</th></tr><tr><td>#22 gauge</td><td>650 feet</td></tr><tr><td>#20 gauge</td><td>950 feet</td></tr><tr><td>#18 gauge</td><td>1500 feet</td></tr><tr><td>#16 gauge</td><td>2400 feet</td></tr></table>
5	Wire each device to the polling loop, making sure of the correct polarity (refer to the device's instructions). **NOTE:** If you are using serial number devices, and intend to enroll each device through the keypad automatically, **wire no more than 25 of these devices to the control at a time.** Then power up and program them before connecting the next 25. Leave previously enrolled devices connected. If you intend to **manually enter the serial numbers** through the keypad or through Compass downloading software, all the devices may be connected before powering up to program.

NOTE: FIRE DEVICES MAY BE WIRED DIRECTLY TO THE PANEL WITHOUT USING AN ISOLATION DEVICE.

VPLEX-VSI

TO FIRE DEVICES

TO BURG DEVICES

polling_loop-012-V2

Figure 3-16: Polling Loop Connections to the Control Panel

Polling Loop Supervision

A short on the polling loop is indicated by a trouble on zone 997 and reports as a trouble condition only.

If a device on the polling loop fails (the panel cannot "see" that device), the system displays a trouble condition for all zones on that device. If the panel is armed when a device fails, and the zone is a burglary zone, the zone will go into alarm.

A trouble on zone 997 prevents a partition from being armed, unless all polling loop zones on that partition are bypassed.

Using the 4297 Polling Loop Extender

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 3-17 and 3-18*, to follow.

DO NOT use the 4197 Polling Loop Extender module with the VISTA-32FBPT*.*

Be sure to include the total current drawn on the polling loop when figuring the total auxiliary load on the panel's power supply.
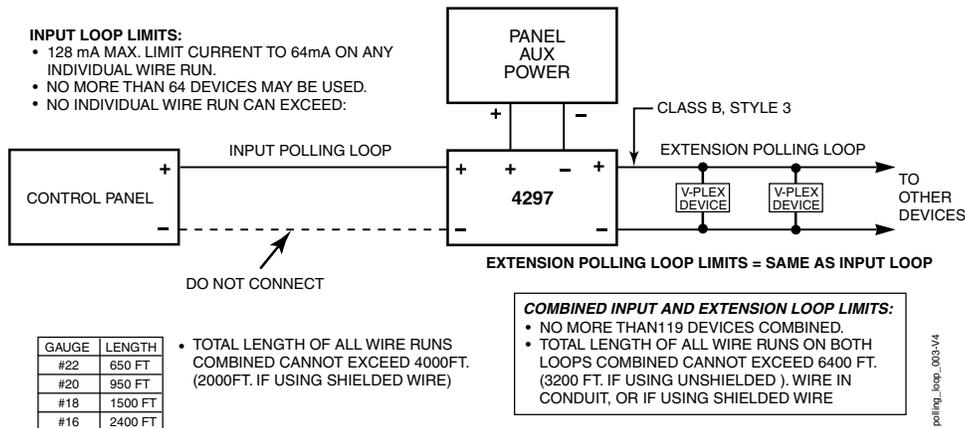

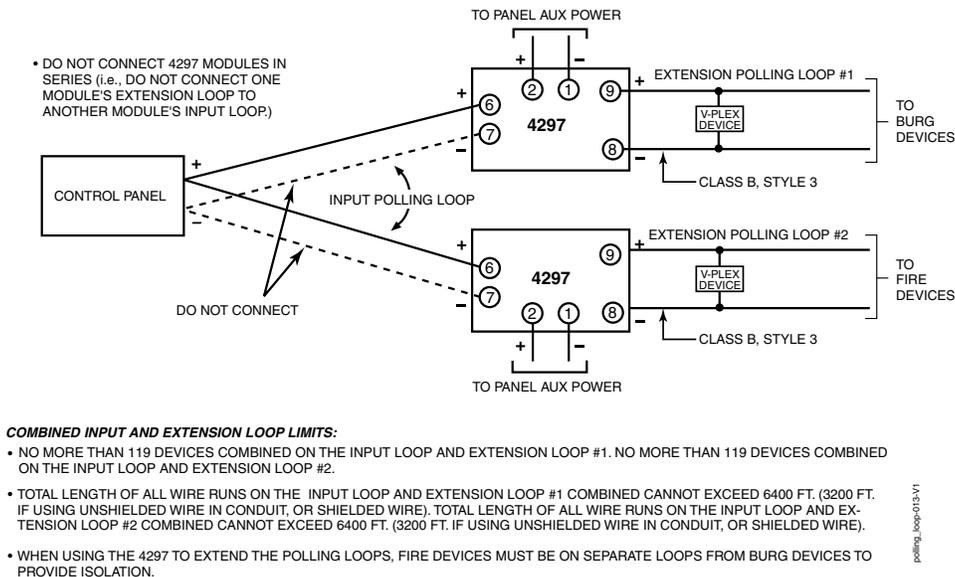*Figure 3-17: Polling Loop Connections Using One 4297 Extender Module*

Figure 3-18: Polling Loop Connections Using Multiple Extender Modules

NOTE: The input loop limits stated in *Figure 3-17* apply to *Figure 3-18* as well.

Wireless Zone Expansion

UL The 5881ENHC RF Receiver, 5869 Holdup Switch Transmitter and 5817CB Wireless Commercial Household Transmitter are Listed for Commercial Burglary applications. All other RF receivers and transmitters are not listed for UL Commercial Burglary applications.

ULC Wireless devices cannot be used for ULC Commercial Fire Installations.

The following table lists the receivers that may be used and the number of zones they support.

5800 Series Receivers

Receiver	Zones
5881ENHC	up to 32
5883H	up to 32

RF System Operation and Supervision

The 5800 RF system operation has the following characteristics:

- The receiver responds to a frequency of 345MHz.
- The receiver has a nominal range of 200 feet.
- Supervised transmitters send a supervisory signal every 70-90 minutes.
- Zones 988 and 990 are used to supervise the RF reception of receivers 2 and 1, respectively. The reception is supervised for the following two conditions:

  1. The receiver goes "deaf" (doesn't hear from *any* transmitter) within a programmed interval of time (defined by program field 1∗30).
  2. Proper RF reception is impeded (i.e., jamming or other RF interference). The control checks for this condition every 20 seconds.

UL A response type 19 (24-Hour Trouble) must be programmed for zones 990 (1st receiver) and 988 (2nd receiver) for UL installations.

- The 5881ENHC receiver contains front and back tampers that permit its use in commercial burglary installations.
- You may only mount the 5881ENHC its own plastic housing. Otherwise, the receiver constantly reports a tamper condition.
- The control checks the receiver connections about every 20 seconds. The receiver supervisory zone is 8 + 2-digit receiver device address (for example, Device address 05 = supervisory zone 805).
  NOTE: This zone must be programmed with a response type (e.g., type 19 24-Hour Trouble) before it supervises the connection to the receiver.
- Use two identical receivers to provide either a greater area of coverage or redundant protection. They must be set for different addresses.
- Any zone from 1 to 31 can be used as a 5800 Series wireless zone, with the exception of zone 32 (reserved for a wireless keypad).

RF System Installation Advisories

- Place the receiver in a high, centrally located area. Do not place it on or near metal objects. This will decrease the range and/or block transmissions.
- 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:
  a. Both must be at least 10 feet from each other, as well as from the control panel and remote keypads.
  b. Each receiver must be set to a different device address. The receiver set to the lower address is considered the 1st RF receiver for supervisory purposes.
  c. The House IDs must be the same.
  d. Using two receivers *does not* increase the number of transmitters the system can support (31 zones using the 5881ENHC).

> ✓ Take note of the address you select for the RF receiver, as this address must be enabled in the system's *Device Programming* in the *#93 Menu Mode*.

To install the 5881ENHC RF receiver, perform the following steps:

| Step	Action
1	Mount the receiver, following the advisories stated previously. **NOTE:** Must be mounted in a 5800Box Enclosure.
2	Set the DIP switches in the receiver for the address **(01-07)**. See *Figure 3-19*. **Make sure the address setting is not being used by another device (keypad, relay module, etc.).**
3	**If installing a 5881ENHC,** install a flat-head screw (supplied) in the case tamper tab as shown in *Figure 3-20*. When the receiver is pried from the wall, the tamper tab will break off and remain on the wall. This will activate a tamper switch in the receiver and cause generation of a tamper signal. Note that this signal will also be generated when the receiver's front cover is removed.
4	Connect the receiver's wire harness to the keypad terminals (11, 12, 13 and 14). Plug the connector at the other end of the harness into the receiver.
5	Refer to the Installation Instructions provided with the receiver for installations regarding antenna mounting, etc.

SCREW

5881ENHC-001-V0
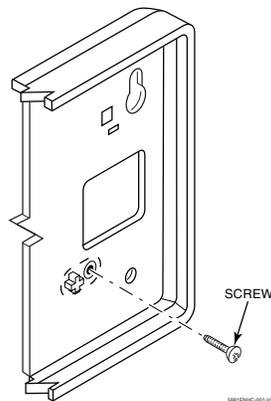
Figure 3-19: Installing the 5881ENHC with Tamper Protection
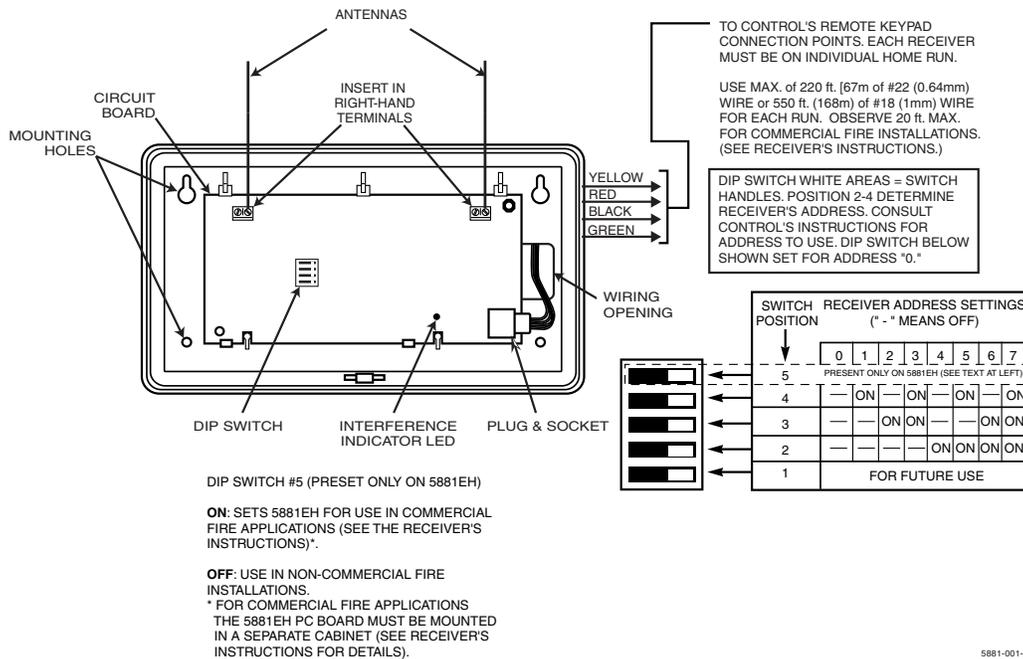
Figure 3-20: 5881ENHC RF Receiver (cover removed)

Text in figure:

ANTENNAS

INSERT IN RIGHT-HAND TERMINALS

CIRCUIT BOARD

MOUNTING HOLES

TO CONTROL'S REMOTE KEYPAD CONNECTION POINTS. EACH RECEIVER MUST BE ON INDIVIDUAL HOME RUN.

USE MAX. of 220 ft. [67m of #22 (0.64mm) WIRE or 550 ft. (168m) of #18 (1mm) WIRE FOR EACH RUN. OBSERVE 20 ft. MAX. FOR COMMERCIAL FIRE INSTALLATIONS. (SEE RECEIVER'S INSTRUCTIONS.)

YELLOW
RED
BLACK
GREEN

DIP SWITCH WHITE AREAS = SWITCH HANDLES. POSITION 2-4 DETERMINE RECEIVER'S ADDRESS. CONSULT CONTROL'S INSTRUCTIONS FOR ADDRESS TO USE. DIP SWITCH BELOW SHOWN SET FOR ADDRESS "0."

WIRING OPENING

DIP SWITCH

INTERFERENCE INDICATOR LED

PLUG & SOCKET

DIP SWITCH #5 (PRESET ONLY ON 5881EH)

ON: SETS 5881EH FOR USE IN COMMERCIAL FIRE APPLICATIONS (SEE THE RECEIVER'S INSTRUCTIONS)*.

OFF: USE IN NON-COMMERCIAL FIRE INSTALLATIONS.
* FOR COMMERCIAL FIRE APPLICATIONS THE 5881EH PC BOARD MUST BE MOUNTED IN A SEPARATE CABINET (SEE RECEIVER'S INSTRUCTIONS FOR DETAILS).

5881-001-V0

SWITCH POSITION	RECEIVER ADDRESS SETTINGS (" - " MEANS OFF)							
	0	1	2	3	4	5	6	7
5	PRESENT ONLY ON 5881EH (SEE TEXT AT LEFT)							
4	—	ON	—	ON	—	ON	—	ON
3	—	—	ON	ON	—	—	ON	ON
2	—	—	—	—	ON	ON	ON	ON
1	FOR FUTURE USE							

5800 Series Transmitter Setup

- Transmitters have built-in serial numbers that must be enrolled in the system using the *#93 Menu Mode Programming*, or via the downloader.
- Some transmitters can support more than one "zone" (loops or inputs) (e.g., 5817CB). Each loop must be assigned a different zone number.

Transmitter Supervision

Supervised RF transmitters send a check-in signal to the receiver at 70–90 minute intervals. If at least one check-in is not received from each supervised transmitter within a programmed period (field 1∗31), the "missing" transmitter number(s) and "CHECK" or "TRBL" are displayed.

Some transmitters have built-in tamper protection, and annunciate a "CHECK" or "TRBL" condition if covers are removed.

> If a loss of supervision occurs on a transmitter programmed for Fire, it reports in Contact ID as a Fire Trouble (373), not Loss of Supervision (381), to the central station.

Transmitter Input Types

All transmitters have one or more unique factory-assigned input (loop) codes. Transmitters can be programmed as one of the following types:

Type	Description
RM (RF Motion)	Sends periodic check-in signals, fault and low-battery signals. The control panel automatically restores the zone to "ready" after a few seconds. It is intended for facilities with multiple motion detectors that may fault and restore simultaneously. The transmitter must remain within the receiver's range. **NOTE:** RF Motion may only be used on loop 1 of a door/window type transmitter.
RF (Supervised RF)	Sends periodic check-in signals, 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 be carried off-premises.
BR (Unsupervised Button RF)	These send only fault signals. They do not send low-battery signals until they are activated. The transmitter may be carried off-premises. Not applicable in Commercial installations.

Transmitter Battery Life

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

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

Compatible 5800 Series Transmitters

Model	Product	Input Type
5800CO	Carbon Monoxide Detector with Built-in Wireless Transmitter	RF
5817CB	Commercial Wireless Transmitter	RF
5869	Holdup Switch Transmitter	RF
5806W3	Photoelectric Smoke Detector with Built-in Wireless Transmitter	RF
5808W3	Photoelectric Smoke/Heat Detector with Built-in Wireless Transmitter	RF
5809	Rate-Of-Rise Heat Detector	RF
5816	Door/Window Transmitter	RF
5820L	Door/Window Contact Transmitter	RF
5853	Wireless Glass Break Detector	RF
5870API-WH/5870API-GY	Wireless Indoor Asset Protection Device	RF
5898	Duel Tech Motion Detector	RF

Installing Output Devices

The VISTA-32FBPT supports up to 96 outputs. Each device must be programmed as to how to act (ACTION), when to activate (START), and when to deactivate (STOP). The 4204, 4204CF, and/or 4101SN may be used as output devices.

NOTE: The first 32 of the 96 Output Devices may be supervised (zones 601-632). Only the relays on 4204CF module may be supervised. If supervision is programmed for other types of Output Devices, unpredictable results may occur.

Installing the 4204 (Burg and Aux Fire Functions) and 4204CF Relay Modules

Each 4204 module provides 4 relays with Form C (normally open and normally closed) contacts. Each 4204CF module adds two style-Y supervised Notification Appliance Circuits to the system. For 4204CF modules, only relays 1 or 3 on each module can be programmed.

4204 and 4204CF relays may be used to trigger auxiliary fire functions such as air handler shutdown, elevator recall, door-holder release, sound system shutdown, etc.

> The relay module will not operate until the device address you have set the DIP switches for is enabled in the control's *Device Programming* in the *#93 Menu Mode*.
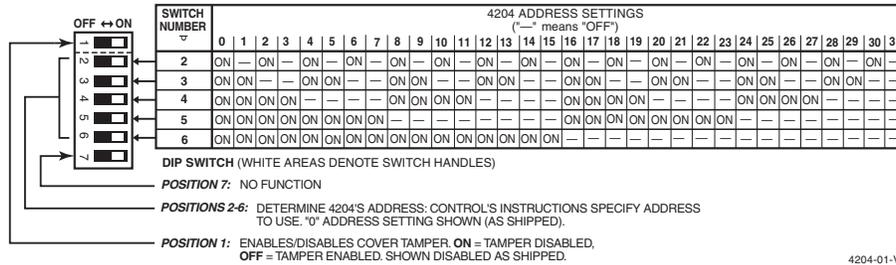
UL
- Relays should not re-energize until the panel is fully reset.
- For Commercial Fire installations, only one notification appliance module may be used, and only one notification appliance output (A or B) may be used on that module in a single audible/visual area.
- If the 4204CF relay is enabled for a NAC, it must follow the action of the NAC on the panel.
- Relays (aux and 4204's) cannot be used for off-premises signaling
- In Commercial Fire installations, the 4204CF cannot be used to drive sounders in the same physical area as sounders connected to the alarm outputs of the control panel.
- Output devices are not intended for overriding automatic building and fire functions.

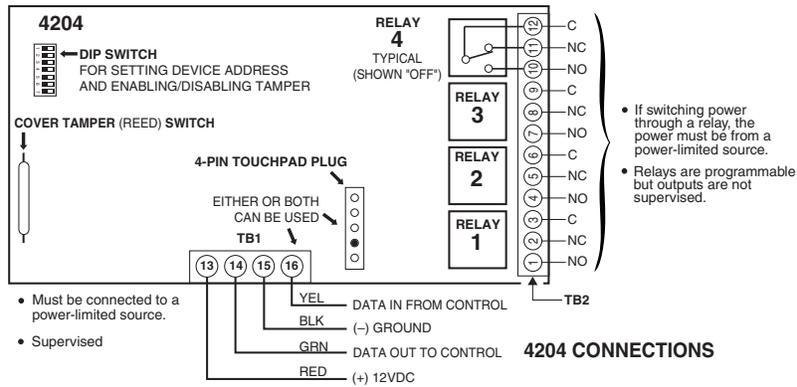To install the relay modules, see *Figures 3-21* and *3-22 and* perform the following steps:

Step	Action
1	Set the 4204 or 4204CF's DIP switches for a device address **01-15**. Do not use an address being used by another device (keypads, RF receivers, etc.).
2	Mount the 4204 and 4204CF modules per the instructions provided with them.

Step	Action
3	Connect the module's wire harness to the control (11, 12, 13 and 14). Plug the connector on the harness to the module.
	When mounting remotely, homerun each module to the control. The table below shows the maximum wire run lengths. 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

DIP SWITCH SETTINGS

4204 ADDRESS SETTINGS ("—" means "OFF")

SWITCH NUMBER	0	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	31
2	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—
3	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—
4	ON	ON	ON	ON	—	—	—	—	ON	ON	ON	ON	—	—	—	—	ON	ON	ON	ON	—	—	—	—	ON	ON	ON	ON	—	—	—	—
5	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	—	—	—	—	—	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	—	—	—	—	—
6	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

DIP SWITCH (WHITE AREAS DENOTE SWITCH HANDLES)

POSITION 7: NO FUNCTION

POSITIONS 2-6: DETERMINE 4204'S ADDRESS: CONTROL'S INSTRUCTIONS SPECIFY ADDRESS TO USE. "0" ADDRESS SETTING SHOWN (AS SHIPPED).

POSITION 1: ENABLES/DISABLES COVER TAMPER. **ON** = TAMPER DISABLED, **OFF** = TAMPER ENABLED. SHOWN DISABLED AS SHIPPED.

4204-01-V1

4204

DIP SWITCH FOR SETTING DEVICE ADDRESS AND ENABLING/DISABLING TAMPER

COVER TAMPER (REED) **SWITCH**

4-PIN TOUCHPAD PLUG — EITHER OR BOTH CAN BE USED

RELAY 4 TYPICAL (SHOWN "OFF")
RELAY 3
RELAY 2
RELAY 1

(12) C
(11) NC
(10) NO
(9) C
(8) NC
(7) NO
(6) C
(5) NC
(4) NO
(3) C
(2) NC
(1) NO

TB2

- If switching power through a relay, the power must be from a power-limited source.
- Relays are programmable but outputs are not supervised.

TB1
(13) (14) (15) (16)

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

- Must be connected to a power-limited source.
- Supervised

4204 CONNECTIONS

4204-02-V2

Figure 3-21: 4204 Relay Module

DIP SWITCH (WHITE AREAS DENOTE SWITCH HANDLES)

POSITION 1 ENABLES/DISABLES COVER TAMPER. **ON** = TAMPER DISABLED, **OFF** = TAMPER ENABLED. SHOWN DISABLED AS SHIPPED.

POSITIONS 2-6 DETERMINE 4204CF'S ADDRESS: CONTROL'S INSTRUCTIONS SPECIFY ADDRESS TO USE. "0" ADDRESS SETTING SHOWN (AS SHIPPED).

POSITION 7 NO FUNCTION

4204CF ADDRESS SETTINGS ("—" means "OFF")

SWITCH NUMBER	0	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	31
2	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—	ON	—
3	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—	ON	ON	—	—
4	ON	ON	ON	ON	—	—	—	—	ON	ON	ON	ON	—	—	—	—	ON	ON	ON	ON	—	—	—	—	ON	ON	ON	ON	—	—	—	—
5	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	—	—	—	—	—	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	—	—	—	—	—
6	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

FOR UL COMMERCIAL FIRE INSTALLATIONS, ONLY ONE NOTIFICATION APPLIANCE MODULE MAY BE USED, AND ONLY ONE NOTIFICATION APPLIANCE OUTPUT (A or B) MAY BE USED ON THAT MODULE.

4204CF

DIP SWITCH FOR SETTING DEVICE ADDRESS AND ENABLING/DISABLING TAMPER

COVER TAMPER (REED) SWITCH

4-PIN CONSOLE PLUG — EITHER OR BOTH CAN BE USED

TB2
(12)
(11) NC
(10) NC
RELAY 3
(9)
(8) NC
(7) NC
RELAY 2
(6)
(5)
(4)
(3)
RELAY 1
(2) NC
(1) NC

NOTIFICATION APPLIANCE OUTPUT B 2K EOLR EOL20
POLARIZED NOTIFICATION APPLIANCES
NOTIFICATION APPLIANCE OUTPUT A 2K EOLR EOL20

POWER FOR NOTIFICATION APPLIANCE OUTPUTS A & B 8-30 VDC REGULATED OR VFW. UP TO 2.4A DEPENDING ON NOTIFICATION APPLIANCE CURRENT.

SPECIAL APPLICATIONS CIRCUITS

ALARM POLARITY SHOWN

EACH OUTPUT PROVIDES STYLE Y SUPERVISION

EACH OUTPUT RATED 1.2A MAX. MAX LINE IMPEDANCE IS 1 OHM.

USE NOTIFICATION APPLIANCES COMPATIBLE WITH POWER SUPPLY VOLTAGE RATING

- NOTIFICATION APPLIANCE AND CONSOLE DATA OUTPUTS ARE POWER-LIMITED.
- ALL POWER-LIMITED WIRING MUST BE SEPARATED FROM NON-POWER-LIMITED AND HIGH-VOLTAGE WIRING BY 1/4" (6.4mm).
- ALL CIRCUITS ARE SUPERVISED AND POWER-LIMITED WHEN POWERED BY THE CONTROL PANEL.
- NFPA-72 COMPLIANT.

TB1
(13) (14) (15) (16)
YEL — DATA IN FROM CONTROL
BLK — (–) GROUND
GRN — DATA OUT TO CONTROL
RED — (+) 12VDC; SUPPLIES POWER TO MODULE CIRCUITRY (INCLUDING APPLIANCE OUTPUT RELAY COILS). CURRENT DRAIN AT 12V IS: 25mA + (80mA PER ACTIVE OUTPUT).

4204CF-004-V3

Figure 3-22: 4204CF Relay Module

Installing 4101SN Relay Modules

The 4101SN V-Plex Single Output Relay Module is a serial number polling loop output device. The 4101SN features the following:

- Form C relay contacts rated at 2A, 28VAC/VDC with contact supervision.
- Can be used to trigger auxiliary fire functions such as air handler shutdown, elevator recall, door-holder release, sound system shutdown, etc.
- One class B/style B EOLR-supervised auxiliary input zone.
- Operating power and communication with control panels via the V-Plex polling loop.
- Electronics mounted in a small plastic case with tamper-protected cover.

> - If using ZONE # for the START of a polling loop output, and want the output to stop when the same zone restores, the STOP programming **must be blank**.
> - No more than 20 polling loop outputs may be programmed for the same START or STOP condition in *Output Programming*.
> - The position of the relay is supervised, but not the actual external contact wiring.

Connect the device to the polling loop, terminals 28 (+) and 29 (-). Be sure to observe polarity.

Installing a Remote Keyswitch

A UL-Listed remote keyswitch, such as the Honeywell 4146, can be used for remote arming/disarming of the burglary part of the system and for silencing alarms. The keyswitch operates in only one particular partition.

The keyswitch is wired across zone 7. This zone is no longer available as a protection zone. Make sure ∗15 is assigned to part (1-3). This sets zone 7 to response type 05.

Operation

- A momentary short arms the partition in the AWAY mode, and a short held for more than 10 seconds arms the partition in STAY mode 1. A subsequent short disarms the partition.
- The keyswitch LEDs indicate the partition's status (see table that follows).
- A momentary short silences Notification Appliance Circuits and keypad sounds, and disarms the system if it was armed. A subsequent short clears the alarm memory indication and resets 2-wire smoke and glassbreak detectors (if used).
- The keyswitch can be used to silence fire alarms without disarming the burglary portion (program a "3" in field ∗15). A momentary short silences alarm outputs only if a fire alarm is present.

UL In Commercial Fire installations, mount the keyswitch next to the primary keypad on keypad port 2 (J4 header) and wire in conduit within the same room as the control panel. The keypad displays the UL-required "ALARM SILENCED" when the keyswitch is used to silence a fire alarm.

LED Indications

Green	Red	Indication
On	Off	Disarmed & Ready
Off	Off	Disarmed & Not Ready
Off	On Steady	Armed Away
Off	Slow Flash	Armed Stay
Off	Rapid Flash	Alarm Memory

> The keyswitch reports as user 0, if Open/Close reporting is enabled in field ∗40.

Keyswitch Tamper Operation

For UL Commercial Burglary installations, the tamper switch must be wired to zone 6, see *Figure 3-24*).

Program zone 6 for Day Trouble/Night Alarm (response type 5). When the keyswitch is removed from the wall, the tamper switch opens, causing an alarm or trouble on the zone. This also causes the control to disable keyswitch operation until the tamper is restored and the associated partition is disarmed.

Wiring for the Remote Keyswitch

To install the ADEMCO 4146 keyswitch, perform the following steps:

Step	Action
1	Connect the ADEMCO 4146 to the panel as shown in *Figure 3-23*.
2	If you are using the tamper, make sure it is connected to a zone.
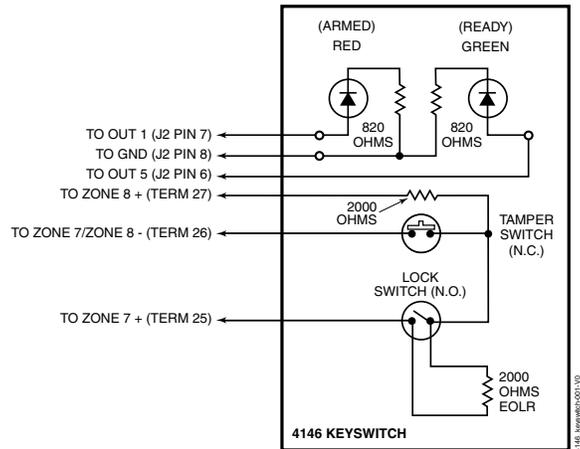
Figure 3-23: Remote Keyswitch Wiring

Installing a Remote Keypad Sounder (For Commercial Burglary use only)

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

If used, program field 3∗20 must be set to "0" and field ∗15 must be set to the desired partition number.

The remote sounder must be connected to the Output 5 on the J2 connector as shown in *Figure 3-24*.
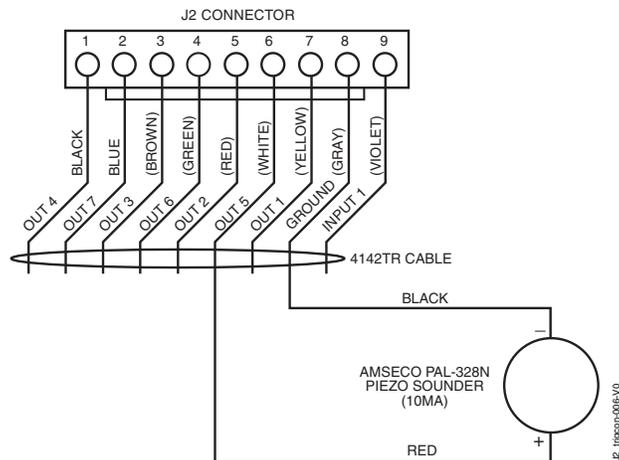
Figure 3-24: Remote Keypad Sounder Wiring

Communicators Connected to the ECP

The control can support an IP or GSM communications device (7847i, GSMV/GSMHS, or IGSMV/IGSMHS) that connects to control panel's keypad terminals. All messages programmed for transmission via the phone lines may also be sent via the communications device. These messages are transmitted in Contact ID format regardless of the format programmed for the control in fields 45 and 47.

> ✓ We recommend that, if possible, you use Contact ID for the main dialer. If Contact ID is not used, certain types of reports are not sent.

ULC For ULC fire installations, Contact ID is the only permitted format.

Supervision

The data lines between the control and the communications device, as well as certain functions in the Communicator, can be supervised. If communication is lost or a trouble condition occurs, both the communications device and the control's dialer can be programmed to send a Trouble message to the central station.

NOTE: For complete information, see the Installation Instructions that accompany the Communicator.

Operation

The VISTA-32FBPT features **Dynamic Signaling Delay** and **Dynamic Signaling Priority** message reporting when a Communicator is used. These message outputs are accessed through data fields *56 and *57, respectively. The Dynamic Signaling feature is designed to reduce the number of redundant reports sent to the central station.

The feature is described as follows:

Dynamic Signaling Delay (Field *56)

Select the time the panel should wait for acknowledgment from the first reporting destination before it attempts to send a message to the second destination. Delays can be selected from 0 to 225 seconds, in 15-second increments.

Dynamic Signaling Priority (Field *57)

Select the initial reporting destination for messages, Primary Dialer **(0)** or Communicator **(1)**.

The chart below provides an explanation of how the Dynamic Signaling feature functions.

If Priority (*57) is…	And message is…	Then…
Primary Phone No. ("0")	Acknowledged before delay expires	Message is removed from queue and no message is sent to communications device.
	Not acknowledged before delay expires	Message is sent to both the Primary Phone No. and communications device.
Communicator ("1")	Acknowledged before delay expires	Message is removed from queue and no message is sent to Primary Phone No.
	Not acknowledged before delay expires	Message is sent to both the Primary Phone No. and communications device.

Additional communications device reporting options are defined by selecting the events for each subscriber ID in fields *58 and *59. The reporting events are Alarms, Troubles, Bypasses, Openings/Closing, System Events, and Test. Also, within an enabled category, the specific event must be enabled for dialer reporting. If, for instance, zone 10 is enabled to report, but zone 11 is not, zone 10 will report via the communications device, but zone 11 will not.

Messages are transmitted from the VISTA-32FBPT to the communications device on a "first in/first out" basis. If events occur at the same time, they are transmitted in order of priority. The priority from most to least important is : Fire Alarms, Panic Alarms, Burglary Alarms, Fire Troubles, Non-Fire Troubles, Bypasses, Openings/Closings, Test messages, and all other types of reports.

There are two subscriber IDs programmed into the communications device: primary and secondary. These correspond to the two subscriber IDs programmed into the control for each partition. If a subscriber ID for a partition is not programmed (disabling reports to that central station), the events enabled for the corresponding subscriber ID in the communications device will not be transmitted.

If the event is to be reported to both phone numbers (dual reporting), then reporting through the communications device will be done in an alternating sequence. The first event in the queue is transmitted to both the primary and the secondary Communicator central stations before transmitting the second event.

If split reporting is selected for the VISTA-32FBPT, then the communications device will send the appropriate reports to the primary and secondary central stations.

Installing the Communicator

To install the communications device, perform the following steps:

Step	Action
1	Mount the communicator according to the instructions that accompany the Communicator.
2	Connect the data in/out terminals and voltage input terminals of the communicator to the control's keypad connection points, terminals 11, 12, 13 and 14. See *Figure 3-25*.
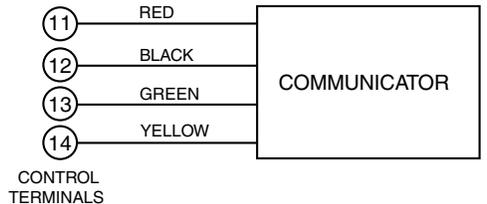
Figure 3-25: Wiring Communicator to Keypad Terminals

Trouble Messages

The following messages are displayed on the 6160/6160CR-2 when a problem exists on the communications device:

1. "LRR Battery": The battery connected to the Communicator is low.
2. "PLL out of Lock": The Communicator has an internal fault and cannot transmit any messages.
3. "Early Power Detect": RF power is detected without a valid transmission.
4. "Power Unattained": Full RF power was never attained.
5. "Frwd. Power Loss": RF power was not sustained throughout the transmission.
6. "Antenna Fault": A problem with the antenna has been detected.
7. "LRR CRC is bad": The communicator's EEPROM is corrupt (the internal CRC is bad).

NOTES:

Items 2 and 3 require factory service.

Items 4 and 5 could be the result of a bad or low battery.

If the item 6 message appears, check the antenna, connection and cable; if they are secure, factory service is required.

All these messages are displayed in conjunction with the "CHECK 8xx" message, which indicates a trouble on the address to which the communications device is programmed in the control.

All of these events except Antenna Fault are sent to the event log and reported to the central station using Contact ID Event Code 333 (expansion device trouble). Antenna Fault uses Event Code 357. If the tamper is tripped, it uses Event Code 341 (expansion device tamper).

Access Control Using VistaKey

The VistaKey is a single-door access control module. When connected to the alarm system, it provides access control to the protected premises. The VISTA-32FBPT supports up to 8 VistaKey modules (8 access points).

UL The VistaKey module contains three zones. These zones should ONLY be used for access control functions in UL installations. THESE INPUT ZONES ARE NOT TO BE USED FOR FIRE AND BURGLARY APPLICATIONS IN UL INSTALLATIONS.

VistaKey Features

- Each VistaKey communicates with the VISTA-32FBPT via the V-Plex polling loop.
- If local power to the VistaKey is lost, the module provides backup monitoring of the access point door via a built-in V-Plex device that is powered solely from the polling loop. The V-Plex device is programmed in the control's Zone Programming. A serial number label is affixed to the VistaKey module for manual entry of its serial number.
- The VistaKey supports up to 250 cardholders for the VISTA-32FBPT.
- All configurable options for each VistaKey are accomplished via software, firmware, and nonvolatile memory, except the access point zone number (1-8), which is set via a user-friendly, 16-position rotary switch.

- The addition and removal of VistaKey modules from the system is easily accomplished via the VISTA-32FBPT keypad.
- Each VistaKey provides one open-collector output trigger (sink 12mA @ 12VDC).

Mounting and Wiring the VistaKey

For detailed instructions on how to install and program the VistaKey, refer the *Installation and Setup Guide* that accompanies the VistaKey-SK.

To mount and wire the VistaKey module, perform the following steps:

Step	Action
1	Mount the VistaKey, door strike or mag lock, and card reader.
2	Mount the door status monitor (DSM) and/or request-to-exit (RTE) devices.
3	Using *Figure 3-26* as a reference, connect the card reader interface cable to TB3, *making the +5V or +12V connection last*.
4	Connect the leads to TB1 in the following order: a. All ground leads to terminals 2, 5, and 9. b. The DSM, (optional) RTE, and General Purpose leads to terminals 6, 7, and 8, respectively. c. Door strike (or mag lock) lead to terminal 10. d. Local +12V or +24V supply lead to terminal 1. e. Local +12V or +24V supply lead to the N/C relay terminal 11 (if a mag lock is being used), **OR** to the N/O relay terminal 10 (if a door strike is being used).
5	Connect the (–) polling loop and (+) polling loop leads (from the VISTA-32FBPT) to terminals 4 and 3, respectively.
6	Set the Address Select switch to the desired access door number (1-8).
7	Repeat steps 1 through 6 for each VistaKey being installed.

Connecting the Card Reader

Lead from Reader	Lead Color	To VistaKey TB3 Terminal #
Green LED	Orange	1
Ground*	Black	2
DATA 1 (Clock)	White	3
DATA 0 (Data)	Green	4
+5VDC†	Red†	6
+12VDC†	Red†	7
* TB-3 Terminal 5 is also a ground and may be used instead of terminal 2. Terminals 2 and 5 are a common ground.		
† Connect to +5VDC OR +12VDC per reader manufacturer's specification.		

THIS DEVICE COMPLIES WITH PART 15 CLASS A LIMITS OF FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) IT MAY NOT CAUSE HARMFUL INTERFERENCE.
(2) IT MUST ACCEPT ANY INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARDS 70 & 74 (NATIONAL FIRE PROTECTION ASSOC., BATTERYMARCH PARK, QUINCY, MA. 02269). PRINTED INFORMATION DESCRIBING PROPER MAINTENANCE, EVACUATION PLANNING AND REPAIR SERVICE IS TO BE PROVIDED WITH THIS EQUIPMENT.

FOR ADDITIONAL RATINGS AND SPECIFICATIONS, REFER TO INSTALLATION INSTRUCTION FOR THE VISTAKEY-SK.

WEEKLY TESTING IS REQUIRED TO ENSURE PROPER OPERATION OF THIS SYSTEM.
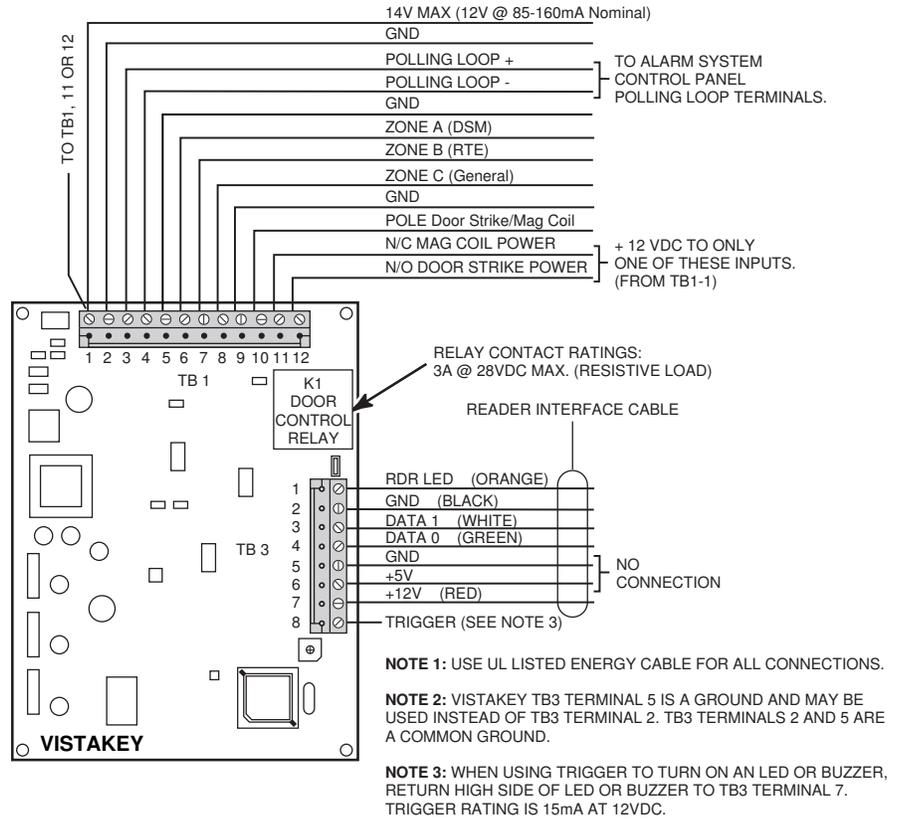
Figure 3-26: Wiring the VistaKey

Event Log Connections

This system has the ability to record up to 512 events of various categories in the Event Log (history log) of various categories in the Event Log (history log). Each event is recorded with the time and date of its occurrence (if real-time clock is set).

The categories are Alarm, Supervisory/Check, Bypass, Open/Close, System and Test conditions. The log may be viewed on an alpha keypad, the GUI or printed on a serial printer.

NOTE: If you are using a serial printer, it must configured with 7 data bits, even parity, 1 stop bit, 9600 baud

Installing the 4286 VIP Module

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

UL The 4286 VIP Module is not permitted in UL installations.

Detailed operating instructions for phone access to the security system are provided with the VIP Module.

The 4286 VIP Module features:

- Allows the user to receive synthesized voice messages over the phone regarding the status of the security system.
- Allows the user to arm and disarm the security system and perform most other commands using the telephone keypad.
- Allows the user to control relays using the telephone keypad.
- Provides voice annunciation over the phone to confirm any command that is entered.
- Announces many of the same words that would normally be displayed on an alpha keypad under the same system conditions. Refer to the words in bold on the Alpha Vocabulary list found in the *#93 Menu Mode Programming* in the *Programming Guide*.
- Can be supervised for connection to control panel (annunciated and reported as Zone 804).

The 4286 is wired between the control panel and the premises' handset(s) (see *Figure 3-27*). It listens for TouchTones on the phone line and reports them to the control panel. During on-premises phone access, it powers the premises phones; during off-premises phone access, it seizes the line from the premises phones and any answering machines.

> - The VIP module will not operate until the device address (04) is enabled in the control's *Device Programming* in *#93 Menu Mode*.
> - Do not mount the VIP Module on the cabinet door or attempt to attach it to the PC board.

To install the VIP module, perform the following steps:

Step	Action
1	Mount the module in the control cabinet if space is available or, if this is not possible, on the side of the cabinet or adjacent to it. **If you mount the VIP Module inside the control cabinet,** attach it to the cabinet's interior surface with 2-faced adhesive tape. You may leave the module's cover off if it is mounted within the cabinet. **If you mount the module outside the cabinet,** use the screw holes at the rear to mount horizontally or vertically (2-faced adhesive tape may be used, if preferred).
2	Affix the 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.
3	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.
4	Connect the module to the phone line as shown below. See *Figure 3-27*. <table><tr><th>4286 Terminal</th><th>Connects to:</th></tr><tr><td>**1.** Phone In (Tip)</td><td>green wire of direct-connect cord</td></tr><tr><td>**2.** Phone In (Ring)</td><td>red wire of direct-connect cord</td></tr><tr><td>**3.** Phone Out (Tip)</td><td>brown wire of direct-connect cord</td></tr><tr><td>**4.** Phone Out (Ring)</td><td>gray wire of direct-connect cord</td></tr><tr><td>**5.** No Connection</td><td></td></tr><tr><td>**6.** Audio Out 1*</td><td>Speaker</td></tr><tr><td>**7.** Audio Out 1*</td><td>Speaker</td></tr></table> ***Supported by the 4286 only** Use an RJ31X Jack with the phone cable to make connections to the VIP module. Make connections exactly as shown in *Figure 3-27*. This is essential, even if the system is not connected to a central station. The 4286 will not function if this is not done.

> - 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 4286.
> - If the phone plug is disconnected from the control, the premise's phones will not operate.
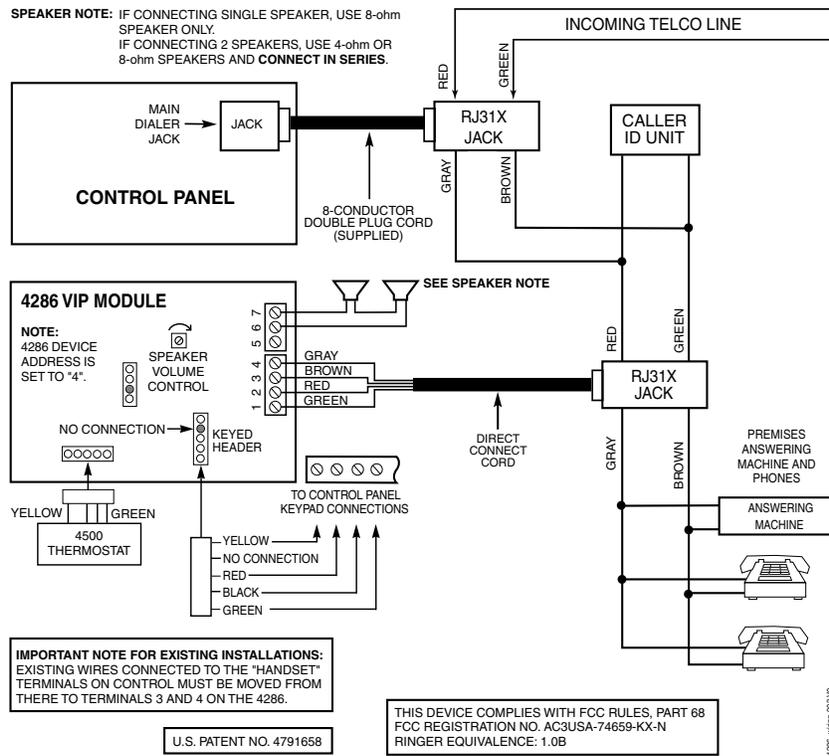
Figure 3-27: 4286 VIP Module Connections

RS-232 Connectivity

Serial Port Configuration

The enhanced serial port on the Vista-32FBPT operates at a speed of 9600bps. Earlier Vista-32FB panels used a speed of 1200bps. (Please note that 1200bps option has been deleted and is no longer supported on Vista-32FBPT.) Depending on your application, you may need to adjust the configuration of your printer, home automation system or external software package to match the new faster speed. Consult the documentation for your external hardware or software for directions on how to do this. In some cases you may need to contact the vendor of this external hardware or software for an update patch or new driver.

Serial Port Connections

The J2 connector is no longer used for direct connect, serial printer or home automation applications. On Vista-32FBPT panels, there are two methods of connecting to the serial (printer/automation) port:

NOTE: TB4 and J13 support WIN-PAK and Pro-Watch, however if you want to connect to a printer you **must** use TB4 in order to get printer DSR supervision ("Printer Off Line").

Using flying leads from terminal block TB4 to a 9- or 25-pin serial connector.

Plugging the VT-SERCBL cable into header J13. This connector terminates in a 9-pin serial connector. To connect this to a PC, you must use a standard straight through serial cable with a 9-pin connector on the panel end and the appropriate connector for your PC on the other end.

The TB4 method is intended for permanent wiring, e.g. when connecting to WIN-PAK or Pro-Watch. The J13 method is ideal for direct-connect programming, where the serial connection being made is only temporary.

When connecting via TB4, observe the TB4 pin configuration shown on the Summary of Connections label.
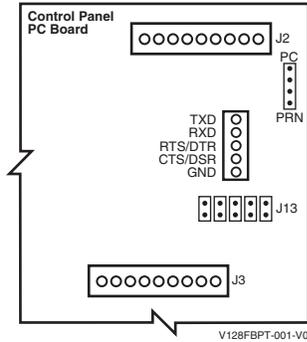
Panel	9-Pin	25-Pin
TXD	2 (All Configurations)	3 (All Configurations)
RXD	3 (WIN-PAK or Pro-Watch)	2 (WIN-PAK or Pro-Watch)
RTS/DTR	8 (WIN-PAK or Pro-Watch)	5 (WIN-PAK or Pro-Watch)
CTS/DSR	4 (Printer Only)	20 (Printer Only)
GND	5 (All Configurations)	7 (All Configurations)

When connecting via J13, use the VT-SERCBL cable assembly. To connect this to a PC, you must use a standard straight through serial cable with a 9-pin connector on the panel end and the appropriate connector for your PC on the other end.

IMPORTANT: When connecting the VT-SERCBL cable into header J13, the red strip (pin 1) on the ribbon cable should be to the left.

NOTES:
1. **TB4 and J13 cannot be used simultaneously**. If you are using one of these connection points to communicate with the panel, you MUST temporarily disconnect the other wiring.
2. You cannot use WIN-PAK or Pro-Watch and the Printer at the same time.

Serial Programming Options for Automation Applications

NOTE: You cannot simultaneously use a serial printer and Home/Facility Automation.

The following group of fields must be set to use the serial port for automation applications:

∗05   Enter 1 to send System Event Messages via RS232 port

∗14   Enter 1 to enable Home/Facility Automation Control Input

1∗78   Extended Home Control Events (Enter 1 for extended)

1∗79   Home Control Event Types (Enter 1 for each event type to be enabled; 0 to disable)

1∗80   Enter 1 to improve automation performance by disabling fault/restore messages over the automation port. If you require live mapping while the system is disarmed, you must enter 0 here.

Connecting the Transformer

NOTE: Upon a total power failure, the control unit will ignore and not transmit alarm supervisory information for a stabilization period of 120 seconds following restoration of power. Within 60 seconds at the end of the stabilization period, the control unit shall initiate the transmission of a power restoration signal code. If this report code is enabled (see report code programming in the Programming Guide), this is the report that will be sent.

To connect the 1451 transformer to the control, perform the following steps:

Step	Action
1	Remove the front cover of the enclosure.
2	Mount the enclosure to the wall near the VISTA-32FBPT control panel. The enclosure has four mounting holes on its back surface for this purpose.
3	Run 120VAC wiring to the enclosure in conduit. **A dedicated circuit must be used.**
4	Use wire nuts to splice the 120VAC wires to the transformer's white and black primary leads.
5	Connect the earth ground post on the back of the enclosure to a good earth ground.
6	Run 16AWG wire in conduit from the enclosure to the control panel.
7	Use wire nuts to splice the transformer blue 18VAC secondary leads to the 16AWG wire. Connect the 16AWG wire at the control panel to terminals 1 and 2.
8	Replace the front cover of the enclosure and fasten it with the screws supplied.

- Use wires having insulation rated for at least 90°C operation and suitable for non-power limited applications.
- Use care to keep 18VAC wiring separated from all other wiring inside the control panel's enclosure. This must be done by running non-power-limited 18VAC wiring into the control panel's enclosure via one of the knockouts on the left-hand side, and then tie-wrapping these wires to the tie-wrap loops located near the knockout.

Earth Ground Connections

In order for the lightning transient protective devices in this product to be effective, the designated earth ground terminal (terminal 30) must be terminated in a good earth ground. Recommended wire gauge for the ground connection is #16 AWG, run no farther than 30 feet.

The panel requires the earth ground connection for its lightning transient protection devices and in order to detect Ground Fault conditions.

To connect the earth ground, perform the following steps:

Step	Action
1	Connect the earth ground post inside the 1451 enclosure to a good earth ground (use grounding methods specified in the National Electric Code).
2	Use a green nut (supplied) to secure the wire to the ground post. The ground wire should be the only wire under this nut.
3	Run a 16AWG wire from the ground post to the panel's earth ground terminal (30). Use a second green nut (supplied) to secure this wire to the ground post. This connection avoids ground loops that may occur when the 1451 and panel are connected to different earth ground systems.

Determining the Control's Power Supply Load

In the event of an AC power loss the VISTA-32FBPT and the Commercial Fire Listed 24VDC Power Supply must be supported by backup, rechargeable batteries. When the system is used **without** a Commercial Fire Listed 24VDC Power Supply, a 12VDC, 12AH to 34.4AH battery must be connected the control panel.

ULC
- For ULC Commercial Fire Installations, only the 34.4AH (2 x 17.2AH) batteries have been evaluated.
- For ULC Commercial Fire Installations, the batteries' capacity must be sized for 24-hour Standby followed by a 30 minute Alarm.

If a Commercial Fire Listed 24VDC Power Supply is used, refer to its Installation Instructions for the appropriate backup battery requirements.

The battery's capacity must be sized to provide 24 hours (central station fire) followed by 5 minutes (fire only) or 15 minutes (fire and burglary) alarm time. Use only sealed lead-acid batteries with a minimum charging current handling capacity of 1.8A.

Use the worksheets that follow to calculate the total current for Auxiliary Power 1, Auxiliary Power 2, Bell 1, Bell 2, Polling Loop and the total current load of the control panel. In each worksheet, multiply each device's standby and/or alarm current by the number of units used.

Then, **if you are using a** Commercial Fire Listed 24VDC Power Supply, calculate the Total 24VDC Power Supply Load using the Power Supply's instructions, to determine the required capacity of the backup batteries that must be connected **If you are NOT using a** Commercial Fire Listed 24VDC Power Supply, fill out the Battery Capacity Calculation Worksheet, following the other worksheets below, to determine the required capacity for the backup battery. Select a battery from the Battery Selection Table (found later in this section) that have a capacity greater than or equal to the calculated capacity.

Battery Capacity must be able to satisfy the Standby and Alarm periods in the chart below dependant on Control Panel usage.

Control Panel Use	Standby Period	Alarm Period	Battery Capacity*
Residential Burg	4 hours	4 minutes	
Commercial Burg	4 hours	15 minutes	
Commercial Burg – Bank Safe and Vault	72 hours	15 minutes	
Commercial/Residential Fire	24 hours	5 minutes	
Canadian Commercial Fire	24 hours	30 minutes	
Proprietary Burg Central Station Receiver	24 hours	---	

1. In Worksheet 1, enter devices used on the polling loop. Calculate total current draw on the polling loop.

Worksheet 1: Total Polling Loop Current Draw

Polling Loop Device	Current	# of Units	Total
Polling Loop Subtotal (terminals 28 & 29 – 128mA) *			

*The total current cannot exceed 128mA. If 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, which can support an additional 128mA load. Note that the total number of points connected to the panel cannot exceed 119.

2. In Worksheet 2, enter devices used on Auxiliary Power 1. Calculate standby and alarm currents, then add to get Auxiliary Power 1 current subtotal.

Worksheet 2: Auxiliary Power 1 Current Load

Device Model #	Device Current X # of Units		Total Current	
			Standby	**Alarm**
Auxiliary Power 1 Subtotal (terminals 10 & 11)			1A max. (for Canada 650mA)	1.7A max.

3. In Worksheet 3, enter devices used on Auxiliary Power 2. Calculate standby and alarm currents, then add to get Auxiliary Power 2 current subtotal.

Worksheet 3: Auxiliary Power 2 Current Load

Device Model #	Device Current X # of Units		Total Current	
			Standby	Alarm
Auxiliary Power 2 Subtotal (pin 5 on keypad port 2)			400mA max.	1.7A max.

4. In Worksheet 4, enter devices connected to the Bell 1 Output. Calculate alarm currents, then add to get the Bell 1 Output current subtotal.

Worksheet 4: Bell 1 Output Current Load

Device Model #	Device Current X # of Units		Total Current	
			Standby	Alarm
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
Bell 1 Output Subtotal (terminals 3 & 4 – 1.7A max.)				

5. In Worksheet 5, enter devices connected to the Bell 2 Output. Calculate alarm currents, then add to get the Bell 2 Output current subtotal.

Worksheet 5: Bell 2 Output Current Load

Device Model #	Device Current X # of Units		Standby	Alarm
				Total Current
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
			XXXXXX	
Bell 2 Output Subtotal (terminals 5 & 6 – 1.7A max.)				

6. In Worksheet 6, enter the total calculated subtotals of all listed outputs from Worksheets 1 through 5, then add to get the combined current.

Worksheet 6: Total VISTA-32FBPT Current Load

	Standby	Alarm
	Total Current	
Polling Loop Subtotal		
Auxiliary Power 1 Subtotal		
Auxiliary Power 2 Subtotal		
Bell 1 Output Subtotal		
Bell 2 Output Subtotal		
VISTA-32FBPT PCB Current (Incl. 2-wire smoke detector loading on zones 1 & 2)	300mA	470mA
5140DLM Backup Dialer Module	5mA (inactive)	15mA (active)
Total Current Load (1A max. standby; 2.3A max. alarm)		

NOTE: The 5140DLM actually draws 55mA when active. However, since the control panel PCB current includes the main dialer current, and since the main dialer is inactive when the 5140DLM is active, the 5140DLM imposes only a 15mA added load on the current supply.

The total control panel standby load must be limited to 919mA for 24-hour standby time using two 12V, 17.2AH batteries connected the Power supply. If you are using a Commercial Fire Listed 24VDC Power Supply use the worksheet supplied with the power supply to determine the correct battery size.

Determining the Size of the Standby Battery

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

7.   Use Worksheet 7 to determine the required backup battery capacity and use The Battery Selection Table to determine the battery model number. **A dual battery harness is supplied** that allows two batteries to be wired in parallel for increased capacity.

Using the total calculated from Worksheet 6, calculate the battery capacity required for the installation.

Worksheet 7: Battery Capacity Calculation Worksheet

Capacity	Formula	Calculated Value
Standby Capacity	Total **standby current** X 24 hours X 1.1 contingency factor.	
Alarm Capacity	Total **alarm curr.** X 0.083 (5 min) or X 0.250 (15 min)	
Total Capacity	**Add standby and alarm capacities**	

Use the Battery Selection Table to select the appropriate battery for the installation.

Battery Selection Table

Capacity	Recommended Battery	Comment
4AH	Yuasa NP4-12	
7AH	Yuasa NP7-12	
12AH	Yuasa NP12-12	Fits in large mercantile cabinet only.
14AH	Yuasa NP7-12	Connect two in parallel.
17.2AH	Yuasa NPG18-12	Fits in COM-UL Cabinet only.

Connect the battery, referring to *Figure 3-28*.

The standby battery is automatically tested for 10 minutes every 4 hours, beginning 4 hours after exiting Programming mode. In addition, entry into the Test mode initiates a battery test. The VISTA-32FBPT also runs a 5-second battery test every 60 seconds to check if the battery is connected.

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

BATTERY TABS

USE THE 2nd PAIR OF BATTERY TABS AND THE 2nd PAIR OF BATTERY HARNESSES (NOT SUPPLIED) TO CONNECT ONE OR TWO ADDITIONAL BATTERIES IN PARALLEL.

BLK − + RED

DUAL BATTERY HARNESS (2 PAIRS SUPPLIED)

MAIN PCB

OBSERVE POPARITY!

BLACK RED BLACK RED

− + 12V BATTERY

− + 12V BATTERY (IF REQUIRED)
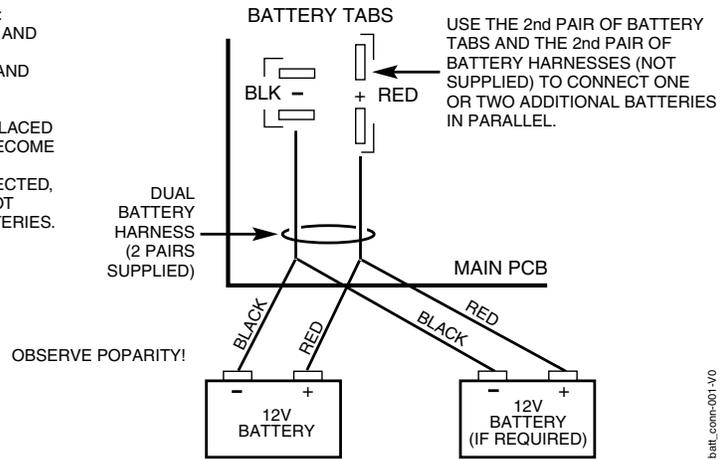
batt_conn-001-V0

Figure 3-28: Connecting the Backup Batteries

Section 4: Downloading

General Information

Downloading allows the operator to remotely access, program, and control the security system over normal telephone lines, IP, or GSM Communicators. Anything that can be done directly from the keypad can be done remotely, using Honeywell's COMPASS downloading software. To communicate with the control panel, the following is required.

System Attributes	Minimum	Recommended
Processor	Intel, Pentium II – 256 MB RAM, Vista – 1GB RAM	Intel, Pentium, IV, 512 MB RAM (or above)
Disk Space (free)	1.5 GB	1.75 GB
Monitor Resolution	800 x 600	1024 x 768

Application	Version
Operating System	Windows XP Professional (SP2 and SP3)
	Windows Vista 32-bit (Home, Ultimate & Business)
	Compatible with the latest version of Windows 7
Database Application	MS SQL Server
Microsoft Internet Explorer	5.5 and above

Phone Line Up Load/ Downloading

1. One of the following modems:
    - ADEMCO CIA
    - Hayes Smartmodem 1200 (external: level 1.2 or higher; internal: level 1.1 or higher)
    - Hayes Optima 24 + Fax 96 external
    - Hayes Optima 336
    - BizComp Intellimodem 1200 w/volume
    - BizComp Intellimodem 2400

    Other brands are not compatible, even if claimed to be 100% compatible.

Internal modems must have a 4-position DIP switch. Modems with a 6-position DIP switch will not work.

1. Compass revision 2.0.xx or above.

IP/GSM Downloading

Panels can be downloaded via the ECP bus over the following Communicators:
- 7845i-ent
- IPGSM-DP
- IPGSM-DPC
- iGSMV-CN
- iGSMHS
- iGSMV
- 7847i

Access Security

The following four levels of protection guard the control against compromise while it is being accessed from a remote location:

1. Security code handshake: The subscriber's account number as well as an 8-digit ID number (known only to the office) must be matched between the control and computer.
2. Hang-up and callback: The control panel "hangs up" and calls the computer back at the pre-programmed number only if the security codes match.
3. Data encryption: All data that is exchanged between the computer and control is encrypted to reduce the possibility of anyone "tapping" the line and corrupting data.

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4. Operator access levels: Operators may be assigned various levels of access to the downloader, each having its own log-on code. The access levels allow the operators read/write capabilities of the customers' account information. For a detailed explanation of the access levels, see the downloading software User Manual.

NOTES:
- Each time the control panel is accessed successfully, a Callback Requested report is sent to the central station, if Opening reports are programmed.
- When the system is downloading, the keypad displays "MODEM COMM."
- After each download or save an automatic time stamp is done to indicate the last download (or save) and the operator ID number.
- A complete hard copy of each individual account can be obtained by connecting a printer to the computer. Refer to your computer Owner's Manual or contact your dealer for printer recommendations.

Getting On-Line with a Control Panel

At the protected premises, the control panel must be connected to the existing telephone line (refer to the *SECTION 3: Installing the Control*). No programming of the panel is required before downloading to an initial installation.

When establishing a connection between the computer and the control panel, the following occurs:

Stage	What Happens
1	The computer calls up the control panel. (The phone number for each customer must be entered into the customer's account file on the computer.)
2	The control panel answers the phone call at the pre-programmed ring count and executes a handshake with the computer.
3	The computer sends a request for callback to the control, unless callback is not required.
4	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 its own memory.
5	Upon a successful match, the control panel seizes the phone line and calls the computer back, unless callback is not required. (The phone number to which the computer's modem is connected must be programmed into the control field ∗35.)
6	The computer answers, usually by the second ring, and executes a handshake with the panel.
7	The panel then sends other default information to the computer. If this information matches the computer's information, a successful link is established. The system is now "on-line" with the computer.

- Alarms and Trouble responses and reports are disabled during actual uploading or downloading sessions. If you are on-line, but not actively uploading or downloading, all alarms report immediately. All other reports are delayed until you complete the session.
- The keypads remain active when on-line with a control, but are inactive during actual uploading or downloading sessions.

To download a control without programming any information, perform the following steps:

Step	Action
1	Enter the **Installer Code + [#] + [5]**. The panel temporarily enables a ring count of 5 and sets the Download Callback option to "1" (callback not required).
2	From the computer, call the panel using the downloader software set to "First Communication" Mode. The downloader establishes a session with no callback. The panel information can then be downloaded.

On-Line Control Functions

The following functions can be performed while on-line with a control panel (see field ∗37):

- 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 nonpayment of monitoring fees in an owned system)
- Shut down all security system functions (for nonpayment for a leased system)

- Inhibit local keypad programming (prevents takeover of your accounts)
- Leave a message for customer
  NOTE: Messages sent to the control panel from the downloader will be viewable at ALL partitions.
- 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, 512 event log, list of zones currently in alarm, list of zones currently in trouble, and ECP equipment list
- Set the real-time clock

Direct-Wire Downloading

The VISTA-32FBPT can be downloaded without using a modem or telephone line. 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.

Telco Handoff

Telco handoff is another method of getting on-line with the downloader. The installer or customer enters the **User Code + [#] + [1]**, while on the phone line with the computer's modem phone line. The customer will get cut-off and the panel and download computer will establish a connection.

Section 5: Setting the Real-Time Clock

General Information

This system provides a real-time clock, which must be set in order for the system's event log to keep track of events by time and date. It must also be set in order to execute scheduling programs (Time-Driven events).

Only users with Installer or Master authority level can set the clock.

Setting the Time and Date

To set the real time clock, perform the following steps:

Step	Action

1	Enter Installer or Master Code + [**#**] **63**. Typical display shows:
	
	 ``` TIME/DATE — THU ```
	 ``` 12:01 AM 01/01/09 ```
	
	 The day of the week is automatically calculated based on the date entered. Time and date entries are made by simply entering the appropriate hour, minute, month, day and year.
	 Press [∗] to move the cursor to the right of the display, to the next position.
	 Press [#] to move the cursor to the left of the display, to the previous position.

2	Enter the correct hour. Then press [∗] to move to the "minutes" field.
3	Enter the correct minutes. Press [∗] to move to the AM/PM position.
4	Press any key 0-9 to change AM to PM, or PM to AM. Press [∗] to move cursor to the "month" field position.
5	Enter the correct month using a 2-digit entry. Press [∗] to move cursor to the "day" field position.
6	Enter the correct day using a 2-digit entry. Press [∗] to move cursor to the "year" field position.
7	Enter the correct year. Press [∗] to continue.
8	Press [∗] to exit the real-time clock edit mode.

Section 6: User Access Codes

● ●

General Information

The VISTA-32FBPT allows a total of 75 security access codes to be allocated. Each security access code is identified by a user ID number. **Regardless of the number of partitions each code has access to, it occupies only one user slot in the system. If a particular code is not used in all partitions, that user ID number cannot be used again.**

The Quick Arm feature can also be programmed (partition-specific program field ∗29). The Quick Arm feature allows the user to arm the system by pressing the [#] key instead of the security code. The security code must always be entered to disarm the system.

✓ A user code other than the installer code must be programmed in order for the Quick Arm feature to function.

The system is shipped with the following defaults for the user codes:

User	4-Digit Code	Alpha Descriptor
User 1 (Installer)	5140	INSTLR
User 2	1234	MASTER

User Codes and Levels of Authority

Each user of the system can be assigned a level of authority, which authorizes the user for certain system functions. A user can have different levels of authority within different partitions

Use the "View Capabilities" keypad function (**User Code + [∗] + [∗]**) to view the partitions and authority levels for which a particular user is authorized. These levels are described below.

Level 0: Installer (User 1) Code

- Programmed in field ∗00 (default = 5-1-4-0). Installer Open/Close reporting selected in field ∗39.
- Can perform all system functions (arm, disarm, bypass, etc.), but **cannot disarm** if armed by another code (or by Quick Arm).
- Can add, delete, or change all other codes, and can select Open/Close reports for any user.
- Is the only code that can be used to enter program mode. The Installer Code can be prevented from re-entering the Program Mode by exiting using ∗98.
- Must program at least one Master Code during initial installation. Master Codes are codes intended for use by the primary user(s) of the system.

Level 1: Master Codes

- Can perform all normal system functions.
- Can be used to assign up to 73 lower-level codes, which can be used by other users of the system.
- Cannot assign anybody a level of 0 or 1.
- May change their code.
- 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 is automatically the **same** as that of the Master who is adding the new user.

Level 2: Manager Codes

- Can perform all system functions (arm, disarm, bypass, etc.) programmed by Master.
- May add, delete, or change other users of the system below this level (Manager cannot assign anybody a level of 0, 1, or 2).
- May change their code.
- Open/Close reporting is automatically the **same** as that of the Manager who is adding the new user.

Levels 3-5: Operator Codes

• Can operate a partition, but cannot add or modify any user code (see table below).

Level	Title	Functions Permitted
3	Operator A	Arm, Disarm, Bypass Burg Zones
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 may need to arm and disarm the system at specific times only (e.g., a babysitter needs to control the system only when babysitting).

Level 6: Duress Codes

• Sends a silent alarm to a central monitoring station if the user is being forced to disarm (or arm) the system under threat (system must be connected to a central station).

• Assigned on a partition-by-partition basis, and can be any code or codes desired.

> Duress Reporting **NOTE:** A non-zero report code for zone 992 (duress) must be programmed, and partition-specific field *85 duress location enabled, to enable Duress reporting.

• The Duress report-triggering logic activates on the 5th key depression (such as OFF), not the 4th key depression (last digit of code). Duress reports are not triggered if the 5th key is a [∗], 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 may not delete or change the user code of the SAME or HIGHER authority than that which he is assigned.

• A user (levels 0, 1 and 2 only) may only ADD users to a LOWER authority level.

• A user may assign other users access to only those partitions to which he himself has access.

• A user code can be DELETED or CHANGED only from within the partition it was created in.

• User numbers must be entered in 2 digits. Single-digit user numbers must, therefore, always be preceded by a "0" (e.g., 03, 04, 05, etc.). Make sure the end user understands this requirement. Temporary codes are entered as 4-digit numbers.

Open/Close Reporting Note: When a user is added, the system prompts for Open/Close reporting capability only if the installer is adding the new user. When a Master or Manager adds a new user, the new user's Open/Close reporting is the same as that of the Master or Manager who is adding the user. If Open/Close reports are required to be selectable by the Master or Manager, the Installer should assign two Master or Manager user codes: one with Open/Close reporting enabled, and one without.

Note that Open/Close reporting of Quick Arm is enabled if User 02 is enabled for Open/Close reporting, and that Quick Arm reports as User 00. In order for Quick Arm reports to be sent for all partitions, User 02 must have authority and Open/Close must be enabled for all partitions. If a code with access to all partitions is not desired, it is suggested that user 02 be assigned authority level 5 in all partitions, and that the code be kept secret. Authority level 5 cannot disarm the system unless armed by that user.

> ADEMCO Contact ID format is capable of reporting Users 01-75 uniquely. If any other report format is used, only user numbers 01 – 15 can uniquely report to the central station. Users 16 – 75 will report as User 15.

Multiple Partition Access

Each user is programmed for a primary (home) partition. A user can also be given access to operate one or more additional partitions. Within each partition, each user may be programmed to have different levels of authority. For example, User 03, the VP of Engineering, could be assigned to work within the Engineering Department (Partition 1) of ABC Manufacturing. Because he needs the full capabilities in his area, he is assigned as a MASTER with Level 1 authority.

He must also be able to gain access to the manufacturing area (Partition 2) on an emergency basis. You can set this up easily by requesting that he also be assigned to Partition 2, with a level of authority set lower, such as Level 4 (OPERATOR Level B).

The control automatically assigns him the same user number within Partition 2.

EXAMPLE OF MULTIPLE PARTITION ACCESS

Part 1	Part 2
User 3	User 3
Level 1	Level 4
Master	Oper B

In the above example, User 03 has MASTER authority in Partition 1 and OPERATOR B authority in Partition 2. His user number is the same for both partitions. Note that if a user number is already being used in a partition, the system will automatically assign a new user an unused number.

Adding a Master, Manager, or Operator Code

✓ During user code entry, normal key depressions at other keypads in a partition are ignored. However, panic key depression causes an alarm and terminates user entry.

Enter Installer Code[†]+ [8] + new user no. (02-75) + new user's code[†]Or Master or Manager Code, but the code must be a higher level of authority than the code being changed (e.g., a Manager Code can add an Operator-level Code, but cannot add a Master or another Manager Code). Keypad prompts for the authority level for this user.

PROMPT	EXPLANATION
User Number = 03 Enter Auth. Level	Enter the level number as follows: 1 = Master 2 = Manager 3 = Operator A 4 = Operator B 5 = Operator C 6 = Duress Keypad then prompts for Open/Close reporting option for this user.
Open/Close Rep.? 0 = NO , 1 = YES	Press **0** (NO) or **1** (YES), depending on whether or not arming/disarming by this user will trigger Opening and Closing reports. This prompt appears only if the Installer Code is used to add a user.
Group Bypassing? 0 = NO , 1 = YES	Enter 1 (YES) to allow this user to perform group bypasses. Enter 0 (NO) this user will not be able to perform group bypasses. **NOTE:** In addition to enabling the user for group bypassing, the user must also have access to the partition(s) containing the zones being bypassed and have global arming capability.
Access Group? Enter 0-8	If access schedules have been programmed, this prompt appears. Enter the user's access group number (1-8) if this user should have limited access to the system. Enter 0 if no access group should be assigned.
RF Button ? 0=NO , 1=YES	Not Used.
Multi-Access ? 0 = NO , 1 = YES	Press **0** (NO) if the user is to have access to this partition only. Press **1** (YES) if the user is to have access to more than one partition. If NO, the program exits this mode. If YES, the keypad prompts for the Global Arm option for this user.

PROMPT	EXPLANATION
Global Arm ? 0 = NO , 1 = YES	Press **0** (NO) or **1** (YES), depending on whether this user will be allowed to arm more than one partition via Global Arm prompts (described in the *VISTA-32FBPT User Guide*). The keypad now prompts 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 this user will have access to the displayed partition number. If NO, the keypad displays this prompt for the next partition number in sequence. If YES, the keypad prompts for the following: • User's authority level in the displayed partition (see Authority Level prompt above). • Open/Close option for this user in the displayed partition (see Open/Close prompt above). • Global Arm option for this user in the displayed partition. When all partitions have been displayed, the keypad will scroll through all partitions to which access has been assigned, and will display the user number, authority level, open/close and global arm options that were programmed for each partition to which the user was granted access. For example:
Part. 1 A0* WHSE User 03 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 Open/Close reporting is enabled for this user in the displayed partition. The "∗" indicates the partition from which the user may be changed or deleted.

Changing a Master, Manager, or Operator Code

Enter Installer Code*+ [8] + new user no. (02-75) + new user's code

*Or Master or Manager Code, but the code must be a higher level of authority than the code being changed (e.g. a Manager Code can add an Operator-level Code, but cannot add a Master or another Manager Code).

PROMPT	EXPLANATION
User Number = 03 NEW USER?	The system detects that the user number is already assigned, and prompts if this is a new user. Press **0** (NO). The system then confirms that the change is allowed based on authorization level.

Deleting a Master, Manager, or Operator Code

Enter your code*+ [8] + new user no. (02-75) + your code again

*Or Master or Manager Code, but the code must be a higher level of authority than the code being changed (e.g. a Manager Code can add an Operator-level Code, but cannot add a Master or another Manager Code).

PROMPT	EXPLANATION
OK TO DELETE 03? 0=NO 1=YES	The system prompts to confirm that you want to delete this user. Press **0** (NO) or **1** (YES). If you answered "yes," that user's code is removed from all partitions to which it was assigned, and all authorization levels and other information about that user are deleted. Note that a user can be deleted only by a user with a higher authority level. A user cannot self delete.

A user code can be deleted only from the partition through which it was entered. If an attempt is made to delete from another partition, the message "User [XX] Not Deleted" is displayed.

Exiting the User Edit Mode

Press either [∗] or [#], or don't press any key for 10 seconds.

Section 7: Testing the System

Battery Test

When AC power is present, the VISTA-32FBPT runs a brief battery test every 60 seconds to determine if there is a battery connected, and runs an extended battery test every 4 hours to check on the battery's condition.

If the VISTA-32FBPT finds that the battery voltage is low (less than approximately 11.5V), it initiates a keypad "SYSTEM LOBAT" display and a rapid keypad beeping sound. It also sends a Low Battery report to the central station (if programmed). The keypad is cleared by entering any security code + OFF, and a Restore report is sent to the central station if the situation has been corrected.

Dialer Test

The VISTA-32FBPT may be programmed to automatically transmit test reports to a central station at intervals ranging from once per hour to once per 9999 hours (field ∗27).

Commercial Fire Alarms and Commercial Burglary requires the test report to be transmitted at least once every 24 hours. The system can be programmed to send the first report at any time of the day, or on any day of the week (field ∗83).

Fire Drill Test (Code + [#] + 69)

This test causes fire Notification Appliance Circuits to be activated for the purpose of conducting a fire drill or bell test. This test can only be activated by the installer or master users from partition 1 keypads by entering the corresponding security code + [#] + 69. The burglary portion of the system must be disarmed.

Keypads display "FIRE DRILL ACTIVE" while the test is active. The test is stopped by entering any user code + OFF.

The system continues to monitor all 24-hour type zones (fire, panic, etc.) and ends the test if any of these zone types produce an alarm condition.

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 Notification Appliance Circuit dings in response to fire zone faults (zone type 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., cannot sense alarms) while this test is active. The test can only be activated by the installer by entering the Installer's Code and pressing [#] + 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 testing non-latching devices, such as heat detectors, be sure to keep the device faulted until the system responds with the keypad beep or siren sound. If the device is faulted only momentarily, the system may not respond to the fault.

When this test is first activated, the system will display:

PROMPT	EXPLANATION
USE BELL DING? 0=NO 1=YES	Enter **1** (YES) to have the fire Notification Appliance Circuits associated with each point sound for 3 seconds when a point is faulted. Enter **0** (NO) if only keypad sounders are desired. The next prompt will be displayed.
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 next prompt will be displayed.

For true detector sensitivity tests, and for compliance with fire codes, you must enter **0** (NO) to this question.

PROMPT	EXPLANATION
LOG RESULTS? 0=NO 1=YES	Enter **1 (YES)** to have the system log each point as it is tested. A list of untested points will also be logged. Enter **0 (NO)** if you do not want to log the results. The next prompt will only be displayed if Contact ID report format has been selected.
C.S. TRANSMIT? 0=NO 1=YES	Enter **1 (YES)** to have the 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 and Walk-Test End report will be sent in either case (if programmed).

When the Test Mode is activated, the system will sound fire Notification Appliance Circuits (or any NAC having a non-zero response type programmed in the *#93 Menu Mode*) for 3 seconds. The system will also send a Start of Walk-Test message to the central station, and will light all keypad indicators (except the ARMED LED) 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. Additionally, in this test mode RF receiver sensitivity is reduced to 50% to ensure proper fire RF device mounting locations.

The system will build a list of all the fire zones (response types 9, 16, 17, 18) that need to be tested. These points will be 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 the auto-test option has been selected, 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 Notification Appliance Circuits 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 about 10 seconds after it finds a fault on one of these zones, to allow faulted detectors to be reset.

The system will automatically perform the smoke detector reset on zones 1 and 2, if programmed for fire, and on the auxiliary relay and any other output device (relay) that is programmed for smoke detector 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 programmed). Note that the test will automatically end if no faults are detected within a 1-hour time period.

Burglary Walk-Test

This test causes the system to sound keypad beeps in response to faults on zones for the purpose of allowing proper zone operation to be checked without triggering alarms. This test can be activated by any 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 this test is first entered, the system activates the alarm output for 3 seconds. The system sends a Start of Walk-Test message to the central station. The keypad displays "Burg Walk Test in Progress" and sounds 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 three beeps from the keypad. Walk in front of any motion detectors. Listen for three beeps when the detector senses movement. The keypad displays the zone number and alpha descriptor while a door or window remains open or while a detector remains activated.

To end this test, enter any security code and press OFF. An End of Walk-Test message is sent to the central station.

The system automatically exits the Test mode if there is no activity (no doors or windows are opened and closed, no motion detectors are activated, etc.) for 60 minutes. The system beeps the keypad(s) twice every 5 seconds during the last 5 minutes as a warning that it is about to exit the Test mode and return to normal operation.

Armed Burglary System Test

- Alarm messages are sent to the central station during the armed 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). If this occurs, verify that the phone line is connected, the correct report format is programmed, etc.

To perform an armed burglary test, proceed as follows:

Step	Action
1	Notify the central station that a test of the system is being performed.
2	Arm the system.
3	Fault one or more zones.
4	Silence alarm sounder(s) each time by entering the code and pressing OFF. **NOTE:** The system must be rearmed after each code + off sequence.
5	Check that entry/exit delay zones provide the assigned delay times.
6	Check the keypad-initiated alarms, if programmed, by pressing the panic key pairs (∗ and #, 1 and ∗, and/or 3 and #). The word ALARM and a descriptor "999" are displayed for ∗ and #. If [1] and [∗] are pressed, "995" is displayed; if [3] and [#] are pressed, "996" is displayed.
7	If the system has been programmed for audible emergency, the keypad emits a loud, steady alarm sound. Silence the alarm by entering the security code and pressing OFF. If the system has been programmed for silent panic, there are no audible alarms or displays. A report is sent to the central station, however.
8	Notify the central station that all tests are finished, and verify results with them.

Testing Wireless Transmitters

Transmitter ID Sniffer Mode

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

> If a transmitter does not have its serial number "enrolled," it will not turn off its zone number.

To enter the Transmitter ID Sniffer Mode, proceed as follows:

Step	Action
1	Enter **Installer Code + [#] + [3].** The keypad displays all zone numbers of wireless units programmed into the system.
2	Fault each wireless zone, causing each device to transmit. As the system receives a signal from each of the transmitters, the zone number of that transmitter disappears from the display.
3	Enter **Installer Code + OFF** to exit the Sniffer Mode.

Go/No Go Test Mode (For Burglary Use Only)

This mode assists in determining good mounting locations, and that the RF transmission has sufficient signal amplitude margin for the installed system.

- All partitions with wireless transmitters must be placed in the test mode for RF receiver sensitivity reduction (50%). Otherwise, the RF receiver remains at full strength.
- Make sure that all partitions are disarmed for this test.

To enter the Go/No Go Test Mode, proceed as follows:

Step	Action
1	Enter **Installer Code + [5].**
2	Fault each wireless transmitter, causing each device to transmit. The keypad will beep three times if the signal is received.
3	If the keypad does not beep, reorient or move the transmitter to another location. Usually a few inches in either direction is all that is required.
4	Enter **Installer Code + OFF** to exit the Go/No Go Test Mode.

Trouble Conditions

Supervisory Messages

Display	Description
SUPV + Zone Number	This indicates that a fire supervisory condition exists on the zone number displayed. This means that the operation of the fire alarm system may be compromised.

Check or Trouble Messages

Display	Description
CHECK or TRBL (as per field 3∗00)	This indicates that a problem exists on the zone number displayed. Zone trouble may be caused by one of the following conditions: • A hardwired fire zone is open (broken wire). • A Day/Night zone (zone type 5) is faulted. • A polling loop zone is not seen by the control panel. • A polling loop zone has been tampered (cover removed on a 4190SN). • A wireless zone has not checked in during the time programmed in field 1∗31. • A 5800 Series transmitter has been tampered (cover removed).
CHECK 6XX XX = 01-32	This indicates a trouble on a 4204CF Supervised Notification Appliance Circuit (corresponding relay number 01-32).
CHECK 8XX XX = 00-30	This indicates a trouble on a peripheral device (connected to the panel's keypad terminals) of the corresponding device address (00-30).
CHECK 9XX XX = 70-77, 88,90,97	This indicates that a system trouble exists (RF receiver, Notification Appliance Circuit, etc.).

If the problem has been corrected, enter an OFF sequence (**Security Code + OFF**) twice to clear the display.

Power Failure

Display	Description
AC LOSS POWER LED is off	This indicates that the system is operating on battery power only. Check to see that the circuit breaker for the branch circuit that your system's transformer is wired to has not been accidentally turned off. **Instruct the user to call a service representative immediately if AC power cannot be restored.**

Other System Messages

Display	Description
COMM FAILURE	Indicates a failure occurred in the telephone communication portion of your system.
LO BAT	Indicates a low-battery condition exists in the wireless transmitter displayed. Pressing any key silences the audible warning sound.
SYSTEM LO BAT	This indicates that a low-battery condition exists with the system's backup battery.
HSENS	Indicates a smoke detector with a high sensitivity level, which may cause a false alarm. The detector should be cleaned or replaced.

Display	Description
LSENS	Indicates a smoke detector with a low sensitivity level. The detector may not detect a smoke condition. The detector should be cleaned or replaced.
RCVR SETUP ERROR	Indicates the system has more wireless zones programmed than the RF receiver can support. If this is not corrected, none of the zones in the system will be protected. If additional wireless zones are desired, use an appropriate receiver.
MODEM COMM	This indicates that the control is on-line with a remote computer.

System Off-Normal Report

If programmed, an Off-Normal report is 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 types 9, 16, 17, 18)
- Fire supervisory present (zone type 18)
- Unrestored fire alarm on any zone
- Bypass of any fire zone
- A fault for any supervised fire Notification Appliance Circuit
- Bypass/disable of any supervised fire Notification Appliance Circuit
- Telco fault of either dialer line
- Bypass/disable of either dialer line
- Earth ground fault
- Bypass of earth ground supervisory zone
- Fault on LORRA "XMIT OK" signal (if enabled)
- LORRA trigger bypassed
- AC failure
- Low system battery
- Keypad supervision fault

The Off-Normal report is sent as follows:

- Contact ID: Code 608
- Express Speed: Digits programmed in System Group #4 report codes

To the Installer

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any alarm system.

The installer should assume the responsibility of developing and offering a regular maintenance program to the user as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least weekly) to ensure the system's proper operation at all times.

Turning the System over to the User

Fully explain the operation of the system to the user by going over each of its functions, as well as the User Guide supplied.

In particular, explain the operation of each zone (entry/exit, perimeter, interior, fire, etc.). Be sure the user understands how to operate any emergency feature(s) programmed into the system.

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.

• Verify that all keypads and devices are addressed properly.

• Note the proper model number of this product, and the version level (if known) along with any documentation that came with the product.

• Note your Honeywell customer number and/or company name.

Having this information handy will make it easier for us to serve you quickly and effectively.

Technical Support:..1-800-645-7492 (8 a.m.-8 p.m. EST)	
World Wide Web Address: ....http**:**//www.honeywell.com/security	

Section 8: Using the Vista-32FBPT as a Slave Communicator

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To use the Vista-32FBPT as a Slave Communicator connected to a Fire Alarm System, follow the setup below.

UL The Vista-32FBPT has not been evaluated for use as a Slave Communicator in UL installations.

Wiring

Wire the Vista-32FBPT as shown in Figure 8-1 below. Be sure to tag the wires at the Terminal Box to identify their connections between the Fire Alarm Panel and the Vista-32FBPT.

Programming

NOTE: An alpha keypad such as the 6160 is required to program the following.

1. Enter Installer Code + 8 + 0 + 0 for Programming Mode.
2. Enter ∗93 for Zone Programming Mode.
3. Program a zone (corresponding to zone input A) as zone type 09 (Fire), zone type 17 (Waterflow), zone type 18 (Fire Supervisory), or zone type 19 24-Hour Trouble) as applicable.
4. Program the applicable report code for the input zone on the Vista-32FBPT.
5. If using a keypad connected to the Vista-32FBPT and the Communicator will be unmanned, program field ∗77 (Auto Restore) for option 2 (restore troubles and fire alarms).
6. If using zone type 18, field 3∗13 (Fire Supervisory Response to Open/Short) must be set to 1 to report Supervisory on short or open.

NOTES:
1. Do not use zone type 16 (Fire w/Verification) for the input zone for fire on the Vista-32FBPT. Use zone type 9 only.
2. Do not connect a bell, horns or strobes to the Vista-32FBPT. Annunciation will be provided by the Fire Alarm Panel.

Figure 8-1: Slave Communicator Wiring Diagram

Sending Vista-32FBPT System Troubles to the Fire Alarm Panel

If using an alpha keypad on the Vista-32FBPT that is mounted next to the Main Fire System Operator Interface, it is not necessary to send Vista-32FBPT troubles to the Fire Alarm Control. If not using an alpha keypad on the Vista-32FBPT mounted next to the Main Fire System Operator Interface, troubles for AC loss, low battery, and communication failure must be sent to the Fire Alarm Control for local annunciation at the Fire System Operator Interface. To do this, connect a 4204CF relay to the VISTA-32FBPT and wire the relay outputs to input zones at the Fire Alarm panel as shown below.

```
FIRE ALARM PANEL                          4204CF

         ○                         ○  N.O.
ZONE                               §
INPUT                              §
         ○                         ○  C


                                   ○  N.C.


                              V32FB-003-V0
```
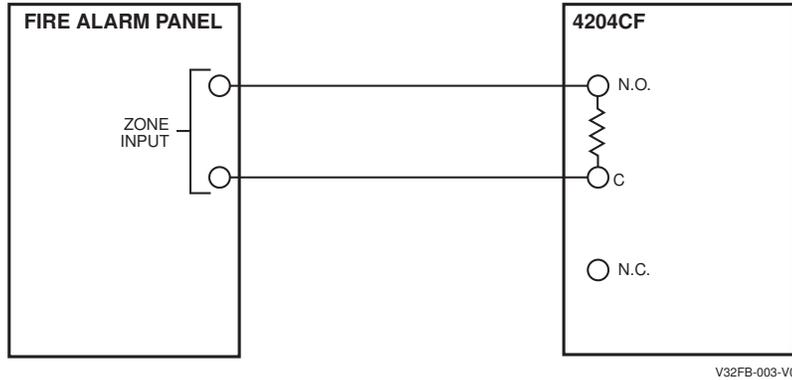
At the Vista-32FBPT, program the each relay in #93 output programming mode to activate on one of these conditions. The "Start" events for these outputs should be programmed as the following Zone Type/System Operations:

41 = AC Power Fail
42 = System low battery
43 = Communications failure

Select the same options for the "Stop" events. That will cause the outputs to revert to normal on the restoral of those events.

At the Fire Alarm panel, program these zones as supervisory or trouble zones. Do not program these zones to report back to the Vista-32FBPT. Instead, make sure report codes are enabled for these conditions in the Vista-32FBPT. The communicator will send these reports itself, and will randomize the AC loss report to the central station as required.

Appendix A: Regulatory Agency Statements

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UL Installation Requirements

The following requirements apply to UL commercial burglary installations:

1.   All partitions must be owned and managed by the same person(s).
2.   All partitions must be part of one building at one street address.
3.   The audible alarm device(s) must be placed where it/they can be heard by all partitions.
4.   The control cabinet must be protected from unauthorized access. This can be done by installing a tamper switch on the cabinet door (supplied with VISTA-32FBPT). Wire the selected device to any EOLR-supervised zone (Zone 1-8). Program this zone for day trouble/night alarm (type 05) or 24-hour audible alarm (type 07) response. The 24-hour alarm response must be used for multiple partitioned systems.
5.   Remote downloading and auto-disarming are not UL Listed features.

UL864/NFPA Local Fire

Configure at least one Notification Appliance Circuit for supervision and wire polarized fire alarm indicators to it.

UL864/NFPA Central Station and Remote Station Fire

1.   Size the backup battery for 24-hour standby time.
2.   For central station service, you may use the 7845i-ent, 7847i, or IGSMV/IGSMHS communications device alone, the main dialer with a communications device, 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.
3.   When the main dialer is used, enable it (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 control panel will activate the trouble trigger when it detects a main dialer supervision fault.
4.   When the backup dialer is used, install it on the control panel's PCB shield as indicated in the *Summary of Connections* diagram. Enable it (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.
5.   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.
6.   If a secondary number is programmed, set the maximum number of dialer retries to 3, 4, or 5 in field 3*21.

Commercial Burglary Requirements

The following requirements apply to all UL Commercial Burglary installations:

1.   All partitions must be owned and managed by the same person(s).
2.   All partitions must be part of one building at one street address.
3.   The audible alarm device(s) must be placed where it/they can be heard by all partitions.
4.   The control cabinet must be protected from unauthorized access. This can be done by installing a tamper switch on the cabinet door (supplied). See additional requirements below.

UL   This system may be used in installations that require UL2050 compliance.

UL609 Local Mercantile Premises/Local Mercantile Safe & Vault

1.   All zones must be configured for EOLR supervision (*41=0). If 4190SN V-Plex devices are used, set field *24 to "0" to enable tamper detection.
2.   Attach a Listed door tamper switch to protect the cabinet door. Wire the selected device to Zone 6. Program this zone for day trouble/night alarm (type 05) or 24-hour audible alarm (type 07) response. The 24-hour alarm response must be used for multiple partitioned systems. Enable field 3*17 so that the system responds to a ground fault on that zone in accordance with the zone type rather than a ground fault response.
3.   For safe and vault installations, a shock sensor (not supplied) that is Listed for protection of sheet metal enclosures, as well as an additional Listed tamper switch, must be installed on the cabinet backbox to protect the cabinet from being removed from the wall. These devices must also be connected to zone 6.

(Also see *Mounting the Cabinet* in *SECTION 3: Installing the Control*).

4. Entry delays must not exceed 45 seconds, and exit delays must not exceed 60 seconds.
5. All unused knockouts must be plugged (use the supplied disc plugs and carriage bolts).
6. Must be used with a Listed burglar alarm sounding device/housing. Depending on the application, a compatible Listed sounding device enclosure may also be required.

UL365 Police Station Connected Burglar Alarm

Follow the instructions for UL609 local installations given above.

For Systems without Line Security:
• You may use the control panel's main dialer alone, or the 7845i-ent, 7847i, or IGSMV/IGSMHS Communications Device alone.
• When using the dialer, program it to send Burglary Alarm, Low Battery and Communicator Test reports. Field *27 must be set to "0024" (or less) so that test reports are sent at least once every 24 hours.

For Systems with Encrypted Line Security:
• The dialer must be used in conjunction with an iGSMHS Communications Device.

UL365/UL609 Bank Safe and Vault Alarm System

• Follow the instructions for UL609 local installations above and Bank/Mercantile Safe and Vault (page 3-2) sections of this manual.
• Bell 1 Confirmation of Arming Ding (*16) must be set to 1 to on (enabled) (will automatically test bell).
• Entry delays or any other delays to report alarms may not exceed 45 seconds.
• Models 7845i-ent, 7847i, IGSMV, and IGSMHS or other compatible Listed communicators with 200-second supervision of the communication channel must be used. A DACT is not to be used.
• Bell Timeout must be programmed for 16 minutes min.
• Two 17.2AH Batteries must be used for this application.
• The main protective circuits, linings and attachments on the safe and vault, control units and alarm housing must be of the normally closed circuit, fully supervised type.
• Total current load must be 430mA max standby; 1.7A max alarm. Standby time must be at least 72 hours and 15 minutes.
• To be installed inside the safe or vault.

UL1610 Central Station Burglary Alarm

Follow the instructions for UL365 local installations stated above, and follow the additional guidelines below.

For Systems without Line Security:
• You must use the control panel's main dialer in conjunction with a 5140DLM, 7845i-ent, 7847i, or IGSMV/IGSMHS Communications Device.
• Program the dialer to send Burglary Alarm, Trouble, Opening/Closing, and Low Battery reports.

For Systems with Encrypted Line Security:
Follow the instructions for Systems without Line Security, but note that only an iGSMHS may be used as the secondary Communications Device.

ULC Installation Requirements

• The zone inputs of the control unit are considered Low Risk applications only.
• The control unit must not be mounted on the exterior of a vault, safe or stockroom.
• Subscriber control units capable of maintaining opening (disarming) and closing (arming) schedules must facilitate a hardcopy printout of the opening (disarming) and closing (arming) schedule programming and of all the programmed holidays.
• Telephone service must be of the type that provides for timed release disconnect.
• A server employed for control over network addressing, encryption or re-transmission, Must be designed to remain in the "on state" at all times.
• Encryption must be enabled at all times for active communications channel security.

For ULC Installations, refer to CAN/ULC-S302, Installation and Classification of Burglar Alarm Systems for Financial and Commercial Premises, Safes and Vaults; CAN/ULC-S301, Standard for Central and Monitoring Station Burglar Alarm systems and CSA 22.1, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations.

FEDERAL COMMUNICATIONS COMMISSION STATEMENTS

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

FCC CLASS B 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 radio or television receiver away from the receiver/control.
• Move the antenna leads away from any wire runs to the receiver/control.
• Plug the receiver/control into a different outlet so that it and the radio or television receiver are on different branch circuits.
• Consult the dealer or an experienced radio/TV technician for help.

INDUSTRY CANADA CLASS B STATEMENT

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC / IC STATEMENT

This device complies with Part 15 of the FCC Rules, and RSS 210 of IC. Operation is subject to the following two conditions: (1) This device may not cause harmful interference (2) This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme à la partie 15 des règles de la FCC & de RSS 210 des Industries Canada. Son fonctionnement est soumis aux conditions suivantes: (1) Cet appareil ne doit pas causer d' interferences nuisibles. (2) Cet appareil doit accepter toute interference reçue y compris les interferences causant une reception indésirable.

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 it has 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 five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact the manufacturer for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request that 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 EMISSIONS STATEMENTS

This Class B digital apparatus complies with Canadian ICES-003

NOTICE	AVIS
The Industry Canada Label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.	L'étiquette d'Industrie Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. 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'enterprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée da raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations.

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. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may cause the telecommunications company to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact an appropriate electric inspection authority, or electrician, as appropriate.

NOTICE: The **Ringer Equivalence Number** (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Les réparations de matériel nomologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur da 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 à la terre de la source d'energie électrique, de lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont 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 racours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

AVIS : L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface. La terminaison d'une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

Appendix B: Summary of System Commands

● ●

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
Programming Commands	Site Initiated Download = User Code + [#] + 1. Direct-Wire Download Enable = User Code + [#] + 5. Enter Program Mode = Installer Code + 800. Enter Interactive Program Mode = Installer Code + 800 + [#] + 93 Exit Program Mode = ∗99 or ∗98.
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)
Additional Commands	Partition GOTO — User Code + [∗] + Partition Number 0-2.
	GOTO Home Partition — User Code + [∗] + 0.
	Panics — [∗] + 1 or A Key (Zone 995). [∗] + [#] or B Key (Zone 999). [#] + 3 or C Key (Zone 996).
	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.
Output Device Control Commands	Activate Output Device as Programmed = User Code + [#] + 71. Activate Output Device as Programmed = User Code + [#] + 72. Activate Output Device Manually = User Code + [#] + 70. Activate Output Device or System Event Instantly = User Code + [#] + 77. Randomize Output Devices = User Code + [#] + 41 Randomize Output Devices Programmed with Activation Times Between 6 PM and 5 AM = User Code + [#] + 42. De-activate Randomization = Enter the sequence used to activate randomization.
Test Mode Commands	Burglary Walk-Test = User Code + 5. Fire Drill Test = User Code + [#] + 69 (Installer or Master Only). One-Man Fire Walk-Test = User Code + [#] + 68 (Installer Only)

Scheduling Commands	Installer-Programmed Schedule Events = Installer Code + [#] + 80 (Installer or Master Only). 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.
Relay Control Commands	Activate Relay for Current Partition = User Code + 0.
Access Control Commands	Activate Access Relay for Current Partition = User Code + 0. Request to Enter/Exit = User Code + [#] + 73. Request to Enter/Exit at Access Point = User Code + [#] + 74 + Access Point Number. Change Access Point State = User Code + [#] + 75 + Access Point + State. Perform a Test of the VistaKey Module = Installer Code + [#] + 78. Perform an Access Control Card Function = User Code + [#] + 79.

Appendix C: Specifications

VISTA-32FBPT

Physical: 18"H X 14-1/2"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, 1.7A max. for each Notification Appliance Circuit.
Aux. Standby Pwr	12VDC, 1A (For Canada 650mA) max.
Total Power	Combined auxiliary standby and alarm currents must not exceed 2.3A (For Canada 1.95A).
Standby Time:	24 hours with 1A (For Canada 650mA) aux standby load using 34.4AH battery.
Fusing:	Battery input, auxiliary and Notification Appliance Circuits are protected using PTC circuit protectors. All outputs are power limited.

Main Dialer

Line Seize:	Double Pole
Ringer Equivalence:	0.7B
FCC Registration No.:	AC3-USA-68192-AL-E
TLM Threshold	Good line when tip-to-ring voltage greater than approximately 25V (13 when blue jumper cut) or when handset current greater than approximately 10mA. Bad line when both voltage and current below these levels.
Formats:	ADEMCO Contact ID; ADEMCO 10-Digit Contact ID and 4+2 Express

Compatible Receivers

7810iR-ent

MX8000

5140DLM BACKUP DIALER MODULE

Physical: 2.75"H X 4"W X 1"D

Mounts on VISTA-32FBPT main PC board shield using standoffs supplied.

Connects to VISTA-32FBPT main PC board J3 header using ribbon cable supplied.

FCC Registration: AC3-USA-62628-MO-N

UL/ULC Listings:

Standard. No.	Name	Edition
UL864	Control Units and Accessories for Fire Alarm Systems	Ninth
ULC-S559-04	Equipment for Fire Signal Receiving Centers and Systems	First
UL1076	Proprietary Burglar Alarm Units and Systems	Fifth
UL1610	Central Station Burglar-Alarm Units	Third
CAN/ULC-S304-06	Signal Receiving Centre and Premise Burglar Alarm Control Units	Second
UL1635	Digital Alarm Communicator System Units	Third
UL365	Police Station Connected Burglar Alarm Units and Systems	Fourth
UL609	Local Burglar Alarm Units and Systems	Eleventh
UL985	Household Fire Warning System Units	Fifth
UL1023	Household Burglar-Alarm System Units	Sixth
ULC-S545-02	Residential Fire Warning System Control Units	Second
ULC/ORD-C1023-74	Preliminary Standard for Household Burglar Alarm System Units	First
ULC-S303-M91	Standard for Local Burglar Alarm Units and Systems	First

Appendix D: Contact ID Codes

TABLE OF CONTACT ID EVENT CODES

Code	Definition
110	Fire Alarm
111	Smoke Alarm
113	Waterflow
121	Duress
122	Silent Panic
123	Audible Panic
124	Duress Access Grant
125	Duress Egress Grant
131	Perimeter Burglary
132	Interior Burglary
133	24-Hour Burglary
134	Entry/Exit Burglary
135	Day/Night Burglary
140	ACS Zone Alarm
142	Polling Loop Short Alarm
150	24-Hour Auxiliary
200	Fire Supervisory
301	AC Loss
302	Low System Battery
305	System Reset
306	Program Tamper
308	System Shutdown
309	Battery Test Fail
310	Ground Fault
313	System Engineer Reset
320	ACS Relay Supervision
321	Bell 1 Trouble
322	Bell 2 Trouble
332	Poll Loop Short-Trouble
333	Expansion Module Failure
338	ACS Module Low Battery
339	ACS Module Reset
342	ACS Module AC Loss
343	ACS Module Self-Test Fail
352	Backup Dialer Trouble
354	Communication Fail
373	Fire Loop Trouble
378	Cross Zone Trouble
380	Trouble (global)
381	Loss of Supervision (RF)
382	Loss of V-Plex Supervision
383	V-Plex Sensor Tamper
384	RF Transmitter Low Battery
385	High Sensitivity Maintenance Signal

Code	Definition
386	Low Sensitivity Maintenance Signal
389	Detector Self-Test Failed
401	O/C by User
403	Power-Up Armed/Auto-Arm
406	Cancel by User
407	Remote Arm/Disarm (Download)
408	Quick Arm
409	Keyswitch O/C
411	Callback Requested
421	Access Denied
422	Access Granted
423	Door Force Open
424	Egress Denied
425	Egress Granted
426	Door Prop Open
427	Access Point DSM Trouble
428	Access Point RTE Trouble
429	ACS Program Entry
430	ACS Program Exit
431	ACS Threat Change
432	Access Point Relay/Trigger Fail
433	Access Point RTE Shunt
434	Access Point DSM Shunt/Unshunt
441	Armed STAY
451	Early Open/Close
452	Late Open/Close
453	Fail to Open
454	Fail to Close
455	Auto-Arm Fail
457	Exit Error by User
459	Recent Close
501	ACS Reader Disable
520	ACS Relay Disable
521	Bell 1 Bypass
522	Bell 2 Bypass
524	Auxiliary Relay Bypass
551	Main/Backup Dialer Bypass
570	Bypass
576	ACS Zone Shunt
577	ACS Point Bypass
579	Vent Zone Bypass
602	Communicator Test
604	Fire Test
606	Listen-In to Follow

Code	Definition
607	Burglary Walk-Test
608	Off-Normal
611	Fire Walk-Test – Point Tested
612	Fire Walk-Test – Point Not Tested
621	Event Log Reset
625	Time/Date Reset
631	Exception Schedule Change
632	Access Schedule Change
912	Fire Alarm Silence

NOTE: If there is a phone line (or radio) failure and the panel has exhausted its maximum attempts to send reporting events to the central station, the panel will hold the messages in a buffer and resend upon restoral of the communication path. In addition, old messages that are sent will indicate that they are not current messages so that the central station does not dispatch on them. In order to accomplish this, an event qualifier of "6" will be sent in place of the "1" or "3" character in the message. The "6" indicates that the message is old. Events will be sent in chronological order and will be time-stamped in the system's event log.

Event Log Alpha Descriptors

Alpha	Event Description	Alpha	Event Description
FIRE	Fire Alarm	SELF TEST	Self-test
DURESS	Duress Alarm	TEST ENTRY	Manual Test Entry
PANIC	Silent or Audible Panic Alarm	TEST EXIT	Manual Test Exit
BURGLARY	Burglary Alarm	LOG OVERFLOW	Dialer Queue Overflow
EXP SHRT	Polling Loop Short	LOG CLEARED	Dialer Queue Cleared
RF EXPND	Expander Module Failure	TIME SET	Time Set
AUXILIARY	Non-burglary Alarm	TIME ERROR	Time Error
TROUBLE	Trouble	PROGRM ENTRY	Program Entry
AC LOSS	AC Loss	PROGRAM EXIT	Program Exit
LOW BATTERY	System Low Battery	Uxxx ADD BY	User XXX Added BY
SYSTEM RESET	System Reset	Uxxx DEL BY	User XXX Deleted BY
PROG CHANGE	Program Change	Uxxx CHG BY	User XXX Changed BY
BATTERY FAIL	System Battery Failure	PRINTER FAIL	Event Log Printer Failure
RF SUPR	RF Supervision	PAGER FAILED	Pager Failure
V-PLEX SUPR	V-Plex Supervision	TESTED	Zone Tested
RF LBAT	RF Low Battery	UNTESTED	Zone Untested
EXP TRBL	Expander Module Trouble	FAILED	Zone Test Failed
RF TRBL	RF Trouble	RLY TRBL	Relay Trouble
TAMPER	Tamper	EXP TMPR	Expansion Module Tamper
FIRE TRB	Fire Trouble	VENT BYPASS	Vent Zone Bypass
FAIL TO COMM	Failure to Communicate	RF JAM	RF Jam Detected
BELL TROUBLE	Bell Trouble	JAM RSTR	RF Jam Restore
DISARMED	Disarmed	FIRE RST	Fire Alarm Restore
DISARMED-REM	Disarmed Remotely	DURE RST	Duress Alarm Restore
DISARMED-KEY	Disarmed Via RF Key	PNC RST	Panic Alarm Restore
DISARM-AUTO	Auto-Disarm	BURG RST	Burglary Alarm Restore
CALL BACK	Callback Requested	EXP RST	Expansion Module Restore
CANCEL	Cancel	RF RST	RF Restore
DISRMD-EARLY	Disarmed Early	AUX RST	Auxiliary Restore
DISRMD-LATE	Disarmed Late	MED RST	Medical Restore
MISSED DISRM	Missed Disarm	TRBL RST	Trouble Restore
SKED CHANGE	Schedule Change	AC RESTORE	AC Restore
ACC SKED CHG	Access Control Schedule Change	LOW BATT RST	System Low Battery Restore
ARM FAILED	Failed to Arm	RESET	Reset
DIALER SHUT	Dialer Shutdown	PROG CHANGE	Program Change
SYSTEM SHUT	System Shutdown	BAT TST FAIL	Battery Test Failure
BYPASS	Bypass	V-PLEX RST	V-Plex Restore

Alpha	Event Description
RFLB RST	RF Low Battery Restore
EXP RST	Expansion Module Failure Restore
TMPR RST	Tamper Restore
FRTR RST	Fire Trouble Restore
COMM RESTORE	Communication Restore
RLY RST	ECP Relay Trouble Restore
ARMED	Armed
ARMED-STAY	Armed Stay
ARMED-REM	Armed Remotely
ARMED-QUICK	Quick Armed
ARMED-KEY	Armed Via RF Key
ARMED-AUTO	Auto-Armed
PARTIAL ARM	Partial Armed
ARMED-EARLY	Armed Early
ARMED-LATE	Armed Late
MISSED ARM	Missed Arm
DIALER RST	Dialer Restore (Shutdown)
SYSTEM RST	System Restore (Shutdown)
BYP RST	Bypass Restore
TEST EXIT	Test Mode Exit
PRINTER RSTR	Printer Restore
PAGER RSTR	Pager Restore
BELL RESTORE	Bell Restore
EXIT ERR	Exit Error
RECENT ARM	Recent Arm
VENT BYP RST	Vent Zone Bypass Restore
Access Control Events	
ACS MOD	Access Control Module Failure
ACS PNT	Access Point Failure
DSM SHNT	Door Status Monitor Shunt
DUR ACCS	Duress Access Grant
NO ENTRY	Access Denied
DR OPEN	Door Propped Open
DR FORCE	Door Forced Open
ENTERED	Access Granted
NO EXIT	Egress Denied
ACPT BYP	Access Point Bypass
RTE SHNT	Request to Exit Shunt

Alpha	Event Description
EXITED	Egress Granted
ACLO MOD	AC Loss at Module
LBAT MOD	Low Battery at Module
COMM MOD	Comm Failure from MLB to Module
RES MOD	Access Control Module Reset
ACPT RLY	Access Point Relay Supervision Fail
SELF MOD	Module Self-Test Failure
ACZN CHG	Access Control Zone Change
ACS PROG	Access Control Program Entry
ACS PRGX	Access Control Program Exit
THRT CHG	Access Control Threat Change
SYS SHUT	System Shutdown
SYS RST	System Engineer Reset
ZN SHUNT	Access Control Zone Shunt
ZN ALARM	Access Control Zone Alarm
RDR DISA	Access Control Reader Disable
RLY DISA	Access Control Relay/Trigger Disable
RTE TRBL	Request to Exit Point Trouble
DSM TRBL	Door Status Monitor Point Trouble
DUR EXIT	Duress Egress Grant
BGN ACS TEST	Access Control Test Mode Start
MOD RST	`/Access Control Module Restore
ACPT RST	Access Point Restore
ACRST MOD	AC Loss at Module Restore
LBAT RST	Low Battery at Module Restore
COMM RST	Comm Fail MLB to Module Restore
RLY RST	Access Point Relay Supervision Rest
SELF RST	Self-Test at Module Restore
ACPT UNB	Access Point Unbypass
DSM UNSH	Door Status Monitor Unshunt
RTE UNSH	Request to Exit Point Unshunt
DRFO RST	Door Forced Open Restore
DRPO RST	Door Propped Open Restore
DSM RST	Door Status Monitor Trouble Restore
RTE RST	Request to Exit Point Trouble Rest
RLY ENAB	Access Control Relay/Trigger Enable
RDR ENAB	Access Control Reader Enable
ZNAL RST	Access Control Zone Restore
ZN UNSHT	Access Control Zone Unshunt
SYSHTRST	System Shutdown Restore
END ACS TEST	Access Control Test Mode End

Glossary

A

- AAV: Abbreviation for Audio Alarm Verification (*see also Two-way)
- Access Code: user code (a.k.a. security code); required to perform all security system functions
- Access Control Relay: This relay is used to control an electronic door strike via a simple keypad command
- Access Schedules: In some controls users may be assigned to 1 or more access schedules which limit the times these users may arm and disarm the system
- Address; Addressable: Devices such as keypad, wireless receivers, and relay modules must be addressed (00-31), usually through dip switch settings, or in the programming of the device
- ADEMCO Contact ID: Allows an alarm to be reported to the central station in about 3 seconds.
- ADEMCO High Speed: Allows an alarm to be reported to the central station in about 3 seconds.
- Alpha Keypad: Allows the use of English Language Display; used for programming and anything with descriptors
- Alpha Descriptor: An English Language name or description of a zone, Such as "Jane's Bedroom Window", as apposed to just "Zone 2"
- Alpha Numeric: The use of the alphabet and numbers
- Arm: To turn the security system On (*see also, Away mode, Stay mode, Instant mode, and Maximum mode)
- Auto-Arm: On supported control the system can be set up to automatically arm at a certain time.
- Auto-Disarm: * See Auto-Arm
- AUI: Advanced User Interface; our touch screen keypad and 6270 series
- Aux.: The abbreviation for auxiliary, i.e. Aux Power
- Auxiliary Power Output: Each Vista Control provides a Limited amount of power for peripheral devices such as a 4-wire smoke and Motion Detectors, etc.
- Away Mode: All Vista Control Panel have the ability to arm Away. This will arm all perimeter and interior zones.
- AWG: Average Wire Gauge; the standard by which wire is measured; wire thickness in millimeters. Standard in the alarm industry is 22awg.

B

- Backlighting: Refers to the lighting up of the keypad's keys and/or display screen
- Battery Calculations: To meet certain UL regulations the system battery must have the capacity to power the system during an AC loss for xx hours; The Fire Control panels have battery calculations charts that help the installer determine the necessary battery size.
- Bypass: To temporarily disable 1 or more zones

C

- CPU: Computer processing unit; main pc board
- C.S.F.M: California State Fire Marshal; agency listing for fire controls in California (a.k.a. CFM)
- Check: When displayed, indicates that a trouble condition exists
- Chime (Chime Mode): When enabled, with the system turned off, the keypad will beep 3 times whenever a door or window opens up. They must be programmed for a Zone Type of 01, 02, 03, 24 and configurable (panel dependant)
- CID: Abbreviation for Contact ID
- Code: *see also report code, access code
- Common Lobby: Some partitioned controls provide for a partition to be a "common" partition which employs logic for automatic arming and disarming of the common lobby (i.e.; Dr.'s office, etc.).
- Console: Keypad (a.k.a. touch pad or control pad)
- Contact ID: *See ADEMCO Contact ID
- Control Board: The main PC Board (a.k.a. the panel; control; PCB; or CPU)
- Control Software (or firmware): The micro-chip that contains the actual program code that runs the control panel (a.k.a. prom chip)
- Custom Words: Controls that support programmable alpha have a built-in Dictionary list, if the word is not in the list they can create that word as a custom alpha descriptor.

D

- Daily Schedule: A partition can have a daily schedule created. This schedule is generally used to determine when the system will Auto Arm and/or Disarm, but it can also be used for special reporting purposes.

- Default Screen: On Alpha Keypads, when the system is disarm the default message is "Disarmed . . . Ready to Arm". On some controls, this default screen can be changed by the installer to say anything up to 32 characters.

- Direct-Downloading: (*see also download) Allows the installer to connect directly to the control panel on site via a laptop without a phone line.

- Disarm: To turn the system OFF

- Download: To send the program data or commands in the Computer to the control panel

- Download ID Number: A user-changeable 8-digit number that is downloaded to the control panel on the initial connection, and must match on any future connection.

- D.T.M.F.: Abbreviation for Dual Tone Multi-Frequency, or Touch Tone

- Dual Reporting: When the same report goes to two separate central station or receivers

E

- ECP: Abbreviation for Enhanced Console Protocol; This is the way that devices such as addressable keypads, wireless receiver and relay modules "talk" to the control panel on the keypad buss.

- EOLR: Abbreviation for End of Line Resistor used on Zones

- EOLSR: Abbreviation for End of Line Supervision Relay used on 4-wire smoke detector zones.

- Earth Ground: All control panels provide an Earth Ground terminal to wire to a ground post. This ground connection can be used to ensure protection against lightning hits and power surges; as a reference point for supervising telephone lines and zone wiring ground fault detection

- Encryption: Encoding; Encryption is used in the Compass Downloading Software to encode account files. Also used in wireless to prevent code stealing

- End of Line Supervision Relay: Relay used to supervise the power on 4-wire smoke detectors

- Event Log: In some controls events can be stored for later viewing; *Events; Event Log Types.

- Events: Situations that have occurred, i.e. Alarms, Troubles, Arming, Disarming, etc.

- Event Log Types: The event log stores events in many categories such as: Alarms, Checks (troubles), Bypasses, Open/Close (Disarm/Arm) System (loss of ac, battery, etc.), and Test

- Exit Error Alarm: An alarm caused by leaving an entry/exit door open after arming.

- Expansion Module: On some controls additional modules may be used to add zones. May be a wireless, Multiplex (polling loop), or Hardwire Zone module.

- Expansion Zones: Zones that are added to the system; May be wireless, Multiplex, or Hardwire Zones.

F

- F.M.: Factory Mutual; Agency listing for commercial fire controls nation-wide

- Factory Default: All controls come from the factory with a set of default values for each option; these defaults are the most popular choices for each available options; Factory defaults can be loaded at anytime by hitting *97 in the panels program mode.

- Fixed Word: All Honeywell keypads use English language displays; some keypads ("alpha") are capable of fully programmable alpha-numeric description for each zone; other keypads are non-alpha programmable but uses Fixed Glass words on the display, such as Ready, Not ready, Armed, Disarmed, etc.

- Forced Bypass: To automatically bypass all open zones at once.

G

- Global-Arm/Disarm: In a multi-partitioned system users that have access to more than one partition may have the option to arm/disarm all of their accessible partitions at the same time.

- Go/No Go Test: This is a patented test (for wireless systems) that gives the installer a definitive Yes or No as to the placement of wireless transmitters.

- GoTo: In a partitioned system the GoTo command allows users, with access to more than 1 partition, to log on and control one partition from another partition's keypad

- GUI: Graphic User Interface

H

- Hardwire Expansion: The ability to add additional hardwire zones to some controls by adding a hardwire expansion module

- Heat Detector (Heat Stat): A device that activates when the ambient temperature reaches 135 degrees (or 190); other types measure quick rises in temperature ("rate of rise")

- Holiday Schedule: A Holiday Schedule overrides the regular daily schedule on selected holidays throughout the year.

- Horn: An indoor sounder generally used in fire systems

- Horn-Strobe: An indoor sounder with a built in strobe light used in fire systems

- House ID: In a 5800 Series wireless system a 2-digit house ID can be used for feed back status for Keyfobs, wireless keypads, etc

I

- Installer Code: The 4 digit code that allows the installer to enter the Panels programming mode; the installer code can not be used to disarm unless it was used to arm.

- Instant Mode: One of the arming modes; when armed Instant all perimeter protection is on; all interior protection is off; there is exit delay time but NO entry delay time.

J

- Junction Box: A box or splice point where wires come together or branch off in an installation

K

- Keypad: a.k.a. Console, Touchpad, Control pad; Used to control all system functions and programming

- Keyswitch: A device used to arm and disarm the system using a hard key

L

- LCD: Liquid Crystal Display

- LED: Light Emitting Diode

- Learn Mode: The learn mode allows 5800 Series wireless transmitters or V-Plex® Serial Poll devices to be programmed into the system simply by tripping the device. (i.e. door or window); The 5800 series transmitters and V-Plex® Serial Poll devices send unique serial numbers that are learned for that zone

- Limited Access: Some controls may be programmed to allow certain codes to only work during certain times. (*see also Access schedules)

- Line Fault: Term used to describe the loss of telephone line voltage •

M

- M.E.A.: Material Evaluation Authority; agency listing for commercial fire installations in Manhattan, New York

- Master Console: Some partitioned controls allow keypads to be designated as a "master" which displays the status of all partitions at once.

- Maximum Mode: One of the arming modes; when armed maximum all perimeter and interior zones are protected with no entry delay (when initially arming you will have an exit delay).

- Multiplex Loop: a.k.a. polling loop, V-Plex®; some controls can support multiplex expansion devices such as PIRs, smokes, 8-zone expanders, etc.

N

- NBFAA – National Burglar and Fire Alarm Association; a national association comprised of security and fire industry professionals; provide training for people in the security/fire industry;

- NFPA: National Fire Prevention Association: a national association that sets forth standards for fire system installations

- Night-Stay Arming: arming the system in the stay mode, however (depending on the panel) you can choose which interior zones will not be bypassed.

O

- Open/close by user: Primarily in commercial application open/close (arm/disarm) reports along with the user number may be sent to the central station; also logged by the event log in some controls

- Output Timers: Some controls may be programmed to automatically control relays, lights, and appliances on a timed basis; these outputs, in some cases, may also be controlled from the keypad as well.

P

- PIR: Abbreviation for Passive Infra red motion detector
- Partition: An area within a total system that can be separately controlled as if it were an individual system.
- Partition Descriptor: A 4-character name that can be programmed in some controls to identify each partition.
- Partition Specific: A feature option that relates directly to a partition as opposed to the system as a whole
- Periodic Test Report: A report sent to central station on a regular basis; Programmable in some controls, but usually happens every 24 hours; UL requirements in commercial applications; Used to verify the dialer is still working properly even though it has not sent any reports
- Phone access: The ability to access and control the security system via touch tone phone on or off premise
- Phone Code: A 2-digit code required to access the security system via touch tone phone.
- Polling loop: A 2-wire loop used to support multiplex devices on some controls; *see also multiplex Loop and V-Plex®
- Powerline Carrier: a.k.a. X-10, UPB: Allows signals to be sent over the existing AC wires to compatible devices; used to control lights, appliances, and other machinery.
- Program Field: A specific address in programming
- Program Mode: The mode through which the installer programs the security system from the keypad
- Pull Station: A device that allows a manual initiation of a fire alarm, such as the 5140MPS

Q

- Quick-Arm: The option to use the [#] key in place of the 4-digit code when turn the system on (arming); Can be used to arm away, stay, instant, and maximum. The 4-digit code is required to disarm the system.
- Quick Bypass: Some controls have the option to bypass all faulted zones by pressing the [Bypass] key + [#] key at the keypad.

R

- Real Time Clock (RTC): a built-in clock that keeps real time, for test reports, scheduling, and output timers; the time and date may be set via the keypad
- Relay: A mechanical device or switch used to transfer power, or to create an open or short in a circuit
- Relay Module: An addressable module used on some controls; 4204, 4229, or 4101SN
- Relay Output: Some controls support programmable Relay Outputs; these can be 4204, 4229, or 4101SN
- Report Code: The alpha-numeric report that is transmitted to the central station receiver to identify the events that have occurred
- Report Format: The Language in which an alarm report is set to the central station
- Restricted Output: Relay Outputs may be restricted to from end-user control
- RF: Abbreviation for Radio Frequency, wireless
- RTC: Abbreviation for Real Time Clock

S

- Scheduling: The general term used for programming something to happen on a preset schedule, such as Open/Close Schedules, Auto-Arming, Limited Access, and Relay Output Control.
- Security Code: a.k.a. user code; access code; Always 4 digits
- Serial Programming: * See Learn Mode
- Siren: A sounding device that consists of a speaker with a built-in siren driver
- Siren Driver: A device that sends electrical (Audio) signal to a speaker
- Sniffer Mode: Installer test modes used with wireless systems to determine if any other systems are operating in the immediate area, or to test reception of local transmitters.
- Speaker (Loudspeaker): A sounding device that consists of a paper cone and a magnetic coil through witch electrical signals are output as audible sounds
- Split Reporting: To send specific reports to one central station or receiver and other reports to a second central station or receiver
- Standard Zones: Zones that are available "out of the box"; zones that do not require the addition of expansion modules.
- Stay Mode: One of the arming modes; when armed stay all perimeter zones are protected an all interior zones are bypassed
- Strobe/Strobe light: A high intensity light that flashes at a constant rate; rated in candle power or candela
- Subscriber Account Number: The 4- or 10-digit number used by the central station to identify the particular account; this number is programmed into the control by the installer.
- System Wide: In partitioned systems this pertains to features and options that affect the system as a whole as opposed to only one partition (*see also partition specific)

T

- Temporary Schedule: Allows end user to override daily and holiday schedules for up to 1 week
- Test Report Interval: The programmable interval during which a periodic test report will be sent; Programmable in some controls for up to 1 month
- Time Window: A programmable period of time used with most scheduling features on some controls; Up to 20 time windows may be programmed for Open/Closing, Access Scheduling, etc.
- Timers: * See output timers and relays
- Transmitter Test Mode: This test mode allows the installer to verify that all programmed transmitters are being supervised by the system.
- Two-way keypad: A wireless keypad that both sends commands, and receives and displays the alarm status
- Two-way Voice: The ability for the central station to "listen-in" to the premise after an alarm

U

- U.L.: Underwriters Laboratory: Agency that lists products and system that have been tested and/or inspected to specific standards
- Upload: To get the program data over the phone line, IP connection, etc. from the control panel to the computer
- User Code: a.k.a. Access code, Security Code; Always 4-digits

V

- V.I.P.: Abbreviation for Voice interactive Phone Module (4286)
- Vista: A line of Honeywell Panels

W

- Wireless: a.k.a. RF; Refers to the 5800/5700 series wireless transmitters and receivers
- Wireless Button: A 5800 Series Transmitter that employs buttons, such as a pendant or wireless key fob
- Wireless Keys: 5804 series Keyfobs. A miniature programmable 2, 4, 6 button keyfob that can be connected to your keychain
- Wireless Receiver: Receivers for the 5800 wireless transmitters. They are classified as Low, Medium, or High. The low receiver can handle 8 wireless zones. The Medium receiver can handle 16 wireless zones. The high receiver can handle as many zones the panel has to offer. Receivers can be stand alone (5881, 5883) or built into a keypad (6150RF, 6160RF).

X

- X-10: See Powerline Carrier.

Y

Z

- Zone List: Used in conjunction with some scheduling features, on some controls, where the actions of specific zones can be used to control relay outputs and other events
- Zone Response Type: a.k.a. Zone Type: Each zone must be given a "personality"; each available zone type represents a different 'personality" such as a perimeter, interior, entry/exit, etc.

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.

For the latest warranty information, please go to:
www.honeywell.com/security/hsc/resources/wa

NOTES

NOTES

Vista-32FBPT Commercial/Residential Fire and Burglary, Mercantile/Bank Safe and Vault, Local and Police Station, Central Station and Proprietary Protected Premises Control Unit with DACT Applications Wiring Diagram

Commercial/Residential Fire, Household Burglary, and Protected Premises Control Unit

TEST BURGLARY SYSTEM WEEKLY

WARNING:

This unit includes a Fire Alarm Verification feature that will result in a delay of the System Alarm Signal from the indicated Fire Alarm circuits. The total delay (Control Unit plus Smoke Detectors) shall not exceed 30 seconds. No other Smoke Detector shall be connected to these circuits unless approved by the local authority having jurisdiction.

FOR DRY, INDOOR USE ONLY

TYPES OF FIRE SIGNALLING SERVICE:
Manual fire alarm, automatic fire alarm, sprinkler supervisory and waterflow alarm, DACT, Radio Frequency (RF) and Multiplex.
UL Listed local control (non-coded). UL Listed central station and remote station protected premises unit when used with 5140DLM back-up dialer module. Installation limits under jurisdiction of local authority.

Circuit (zone)	Control Unit Delay, Seconds	Smoke Detector	
		Model	Delay, Seconds
Zone 1	8 Seconds		
Zone 2	8 Seconds		
Aux Relay	8 Seconds		

THE DELAY TIME MARKED ON THE INSTALLED DETECTOR(S) IS TO BE USED.

This equipment should be installed in accordance with the National Fire Alarm Code, ANSI/NFPA 72 (National Fire Protection Assoc., Batterymarch Park, Quincy, MA. 02169). Printed information describing proper installation, operation, testing, maintenance and repair service is to be provided with this equipment.

NOTE: As shipped, the Vista-32FBPT is suitable for Commercial Fire applications. The cabinet supports two 7AH batteries. If additional battery capacity is required, you must use a Listed battery enclosure. Extra batteries must be installed in the same room as the panel.

Additionally, this equipment should be installed in accordance with UL1641 - Installation and Classification of Residential Burglar Alarms Systems.

VISTA-32FBPT
SUMMARY OF CONNECTIONS

NOTES
1. The combined standby current drawn from aux pwr #1, aux pwr #2 and polling loop cannot exceed 1.0A (for Canada, 650mA).The combined alarm current drawn from aux pwr #1, aux pwr #2, polling loop, bell 1 and bell 2 cannot exceed 2.3A (for Canada, 1.95A).
2. See instructions on setting addresses & for max # of keypads and wire run length restrictions.
3. Use only 14-22 AWG wire.
4. No more than one (1) wire per terminal may be connected.
5. Maximum Loop Impedance is 1.17 ohms.
6. 2k EOLR is Ademco Model EOL20.
7. If supervision of the batteries is required, they should be connected to the Battery Sense Module. The Battery Sense Module is then connected to the panel. Refer to the Battery Sense Module instructions for connections.
8. The control unit is to be checked by a qualified technician at least every 3 years.

Vista-32FBPT Commercial/Residential Fire, Household Burglary and Protected Premises Control Unit Applications Wiring Diagram