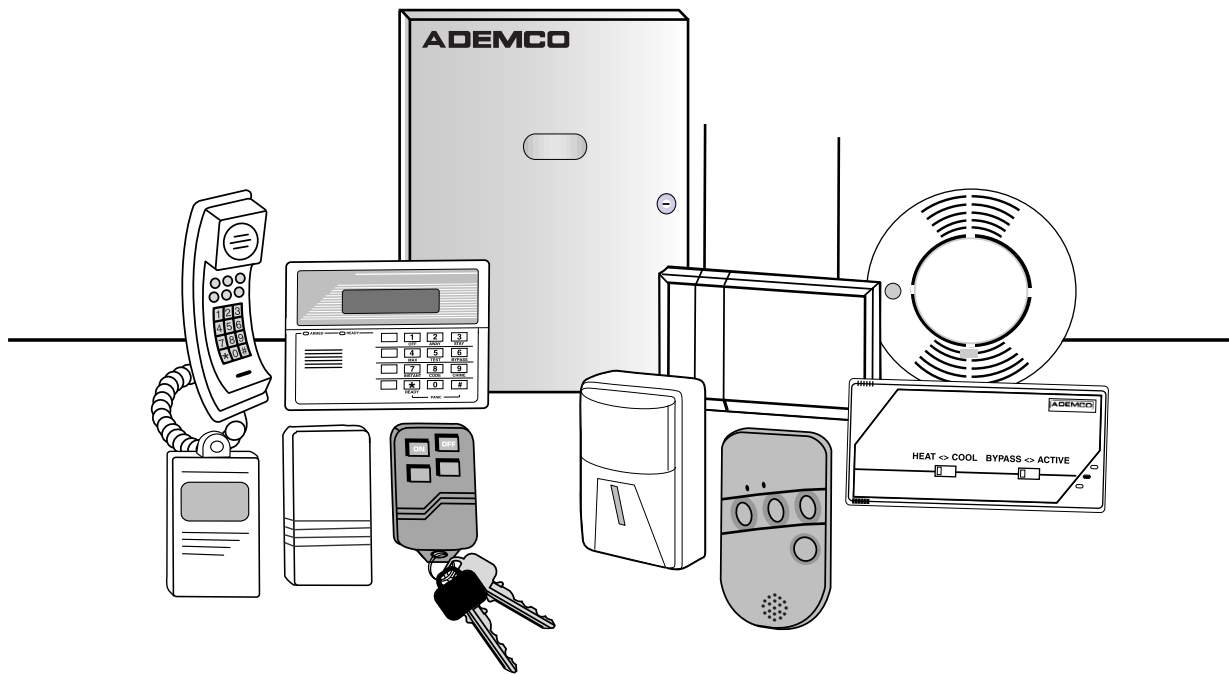


VISTA-10SEa

Security System

Installation and Set-Up Guide



® ADEMCO

Table of Contents

Section 1.	GENERAL DESCRIPTION	1-1
	About the VISTA-10SEa.....	1-1
	Basic Wired Zones.....	1-1
	Optional Expansion Zones.....	1-1
	Wireless Expansion Table.....	1-2
	Remote Keypads	1-2
	Security Codes.....	1-2
	Keypad Panic Keys	1-2
	Quick Arm Feature	1-2
	Optional Output Relays.....	1-2
	Optional Phone Module	1-2
	Alarm Output.....	1-2
	Auxiliary Power Output	1-3
	Programming	1-3
Section 2.	INSTALLING THE CONTROL.....	2-1
	Mounting the Cabinet.....	2-1
	Installing the Lock (if used)	2-1
	Installing the Control's Circuit Board Alone or (if used) with a 4204, 4219 or 4229 Relay Unit.....	2-2
	Installing Control and RF Receiver Circuit Boards Together in the Cabinet	2-2
	Standard Phone Line Connections	2-4
	Wiring the AC Transformer	2-4
	Wiring Table	2-4
	Installing the Backup Battery	2-5
	Earth Ground Connections	2-5
Section 3.	INSTALLING REMOTE KEYPADS.....	3-1
	Keypads That May Be Used.....	3-1
	Wiring to the Keypads.....	3-1
	Wiring Chart for Devices Drawing Aux Power from the Control	3-1
	Mounting the Keypads	3-2
	Supplementary Power for Additional Keypads.....	3-2
	Preliminary Checkout Procedure.....	3-3
Section 4.	BASIC WIRED ZONES 1-6.....	4-1
	Installing the Basic Wired Zones	4-1
	Wiring Burglary and Panic Devices to Zones 1-6	4-1
	Wiring 4-Wire Smoke/Combustion Detectors on Zones 5.....	4-1
	Compatible Smoke Detector Table.....	4-2
	Programming Basic Wired Zones.....	4-2
	Checkout Procedure for Basic Wired Zones 1-6	4-4

Section 5.	WIRED ZONE EXPANSION (4219, 4229)	5-1
	Installing Zone Expansion Units	5-1
	Connections and Setup	5-1
	Programming Wired Expansion Zones	5-2
	Checkout Procedure for Wired Expansion Zones	5-4
Section 6.	WIRELESS (RF) ZONE EXPANSION (5800 RF SYSTEMS).....	6-1
	Wireless Systems Available	6-1
	Wireless System Receivers Table	6-1
	Wireless System Operation and Transmitter Supervision	6-1
	Receiver Supervision	6-2
	Wireless System Installation Advisories	6-2
	Installation and Setup of the 5881 Series Wireless Receivers.....	6-2
	Installing the 5800TM Module.....	6-3
	Terminal Connections Table.....	6-3
	5800 Series Transmitter Setup	6-4
	5800 Transmitter Input Device Type Chart	6-4
	Compatible 5800 Series Transmitters Table	6-5
	Programming the RF Transmitters (5800 RF Systems).....	6-7
	Enrolling 5800 Transmitters into the System	6-7
	Enrolling Through Zone Programming	6-7
	Removing a Zone from the System (5800 System)	6-10
	Deleting a Transmitter Serial Number from a Zone in *56 Mode	6-11
	Checkout Procedure for Wireless Zones	6-11
Section 7	RELAY OUTPUTS.....	7-1
	Relay Device Basics	7-1
	4204 and 4229 Relay Modules.....	7-1
	Programming Options Defined	7-2
	Programming Output Relays	7-4
Section 8.	4285/4286 PHONE MODULE	8-1
	Installing the 4285/4286 Phone Module	8-1
	Phone Module/Control Wiring Table.....	8-2
	Programming the Control for Phone Access	8-4
	Ring Detection Count Chart	8-4
	Checking the Operation of the 4285/4286 Phone Module	8-5
Section 9.	EXTERNAL SOUNDERS	9-1
	About External Sounders	9-1
	Sounder Connections	9-1
	Siren Supervision.....	9-1
	Programming for External Sounders	9-2
	Testing the Sounder.....	9-2
Section 10.	FINAL POWER-UP	10-1
	About Final Power-up.....	10-1
	Earth Ground Connections	10-1
	Mains Powering	10-1

	Connecting the Backup Battery.....	10-1
	Auxiliary Device Current Drain Worksheet.....	10-3
Section 11.	ALPHA DESCRIPTOR PROGRAMMING.....	11-1
	About Alpha Descriptor Programming.....	11-1
	Assigning Zone Descriptors.....	11-1
	Adding Custom Words.....	11-3
	Alpha Vocabulary List (for Entering Zone Descriptors).....	11-5
	Character (ASCII) Chart	11-6
Section 12.	SEQUENTIAL MODE (FOR 5800 SERIES WIRELESS TRANSMITTERS).....	12-1
	Two Methods of Enrolling Transmitters	12-1
	Using the Program Tool	12-1
	Enrolling Transmitters Sequentially	12-1
Section 13.	SYSTEM COMMUNICATION.....	13-1
	About System Communication.....	13-1
	Report Code Formats.....	13-1
	Report Code Table	13-1
	Table of Contact ID Event Codes	13-2
	Communication Programming.....	13-3
	Split/Dual Reporting Table.....	13-4
	Ring Detection Count Chart.....	13-6
Section 14.	TESTING THE SYSTEM.....	14-1
	Test Procedure	14-1
	To the Installer	14-2
Section 15.	SYSTEM OPERATION.....	15-1
	Security Codes.....	15-1
	Keypad Functions	15-2
	Summary of Arming Modes Chart	15-3
	Panic Function Chart.....	15-3
	Trouble Conditions	15-4
Section 16.	TROUBLESHOOTING GUIDE.....	16-1
	System (Including Wireless)	16-1
	Control.....	16-2
	Smoke Detectors	16-3
Section 17.	SPECIFICATIONS & ACCESSORIES.....	17-1
	Specifications	17-1
	Accessories (Compatible Devices).....	17-3

LIMITATIONS OF THIS ALARM SYSTEM

LIMITED WARRANTY

VISTA-10SEa SUMMARY OF CONNECTIONS DIAGRAM

NOTE: A Programming Guide is supplied in addition to this manual.

List of Figures



Figure 2-1. Installing the Cabinet Lock 2-1

Figure 2-2. Installing the PC Board Alone or (if used) with a 4204.....2-2

Figure 2-3. Installing the PC Board & RF Receiver (if used) Together in the Cabinet 2-3

Figure 2-4. Standard Telephone Line Connections.....2-4

Figure 3-1. Keypad Connections to the Control Board 3-2

Figure 3-2. Using a Supplementary Power Supply for Keypads.....3-3

Figure 4-1. 4-Wire Smoke Detector Connections to Zone 5 4-2

Figure 5-1. Wiring Connections, 4219 & 4229 (4229 shown).....5-2

Figure 6-1. 5881 Wireless Receivers (cover removed).....6-3

Figure 7-1. 4204 Connections to Control 7-2

Figure 7-2. 4229 Connections to Control 7-2

Figure 8-1. 4285/4286 Phone Module Wiring Connections.....8-3

Figure 9-1. Typical Sounder Wiring.....9-2

VISTA-10SEa SUMMARY OF CONNECTIONS DIAGRAM..... Inside Back Cover

How to Use This Manual



This manual is written to accommodate both the new and the experienced installer of ADEMCO products. A general description of the entire system is located in the first section of this manual. This includes the various features available and the optional peripheral devices that the system can support.

This manual is divided into separate sections. A section covering the basic wired zones (1-6) provides complete information on the capabilities of each basic wired zone, including its usage, programming, and a checkout procedure. Separate sections are also provided for each peripheral device that can be used in the system, and include wiring setup, programming requirements, and a checkout procedure for that device. Following the checkout procedures ensures that the specific device is operational in the system before you proceed to the next section. This “sectional” arrangement is also particularly useful if you are making an addition

to the system at a later time (e.g., adding wireless zones, adding a 4285 Phone Module, etc.).

Without an understanding of the programming method for this system, you will not be able to successfully perform the required programming. Before any programming is attempted, we therefore urge you to read the “Mechanics of Programming” and the “Data Field Descriptions” in the separate **Programming Guide** that has been supplied.

If you are an experienced user of ADEMCO products, you may choose to wire and then program the entire system at one time. If so, refer to “Mechanics of Programming” and “Data Field Descriptions” in the separate Programming Guide after the hardware setup is complete. The Programming Guide contains all of the information you will need to program the system (including a blank Programming Form), except for detailed programming for basic wired zones 1–6, wired expansion zones, and wireless zones, which are contained in the following sections in this manual: *BASIC WIRED ZONES 1–6*, *WIRED EXPANSION ZONES*, and *WIRELESS (RF) ZONE EXPANSION (5800 RF SYSTEMS)*.

This manual uses various icons to denote critical notes and technical tips to assist you with the installation of this system (see next page).

Conventions Used in This Manual



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

NOTES AND WARNINGS:

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

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

***00** When programming the system, data fields are indicated by a “star” (*) followed by the data field number.

Enter Zn Num.
(00 = Quit)

In the text of this manual, Interactive programming prompts are shown in a single-line box (e.g., *56 Menu Mode for Zone Programming).

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

General Description

In This Section

- | | |
|----------------------------|--------------------------|
| ◆ About the VISTA-10SEa | ◆ Quick Arm Feature |
| ◆ Basic Wired Zones | ◆ Optional Output Relays |
| ◆ Optional Expansion Zones | ◆ Optional Phone Module |
| ◆ Remote Keypads | ◆ Alarm Output |
| ◆ Security Codes | ◆ Auxiliary Power Output |
| ◆ Keypad Panic Keys | ◆ Programming |

About the VISTA-10SEa

The VISTA-10SEa is a control that supports up to 22 zones using basic wired and/or wireless expansion, plus remote keypads.

Basic Wired Zones

Provides 6 basic wired zones having the following characteristics:

- Zones 1–6: response time is 300–500 milliseconds.
- Zone 3: programmable for fast response time (10 milliseconds).
- EOLR supervision supporting N.O. or N.C. sensors.
- Zone 5: supports as many 4-wire smoke or heat detectors as can be powered from the control).
- Zone 7, 95, and 96: keypad Panics.
- Zone 8: Duress.
- Zone 9: Expansion module failure/trouble.

Optional Expansion Zones (up to 16 total, wired and wireless zones)

Wired Expansion:

Supports up to 8 additional wired zones using a 4219 Expansion Module or 4229 Expansion/Relay Module.

Zones have the following characteristics:

- EOLR supervision supporting N.O. or N.C. sensors.
- 300–500mSec normal response with an option for fast (10–15mSec) response on loop A (first expansion zone).

Wireless Expansion:

- Supports up to 16 wireless zones (fewer, if using wired expansion zones).
- Requires the use of a 5881-type receiver (with 5800 Series wireless transmitters), as shown below.

Wireless Expansion Table

Receiver Model	No. of Zones
5881L	Up to 8
5881M	Up to 16
5881H	Up to 16

Remote Keypads

You may use up to 4 of any of the following keypads:

- *Fixed-Word Keypads:* **6128**, **6128RF**, and **6137** (fixed-word display).
 - *Alpha Keypad:* **6139** (2-line alphanumeric display).
-



If you will be programming from a keypad, you must connect a 6139 2-line alpha keypad. (It need not stay in the system.)

Security Codes

- One Master code for entire system (User 2). Installer code is user 1.
- Up to 4 Secondary User codes (for Users 3–6). If you are **not** using a Duress code, User code 8 is available for an additional user.
- One Duress code (User 8), which, when used to disarm or arm the system, will send a silent Duress message to the central station.

Keypad Panic Keys

- Up to 3 programmable Panic key functions are provided, designated as Zones 7, 95, 96.
- Activated by wired and wireless keypads.
- Reported separately, distinguished by subscriber ID number.

Quick Arm Feature

- Quick Arm may be programmed, allowing use of the [#] key in place of the security code for arming (Quick Arm will not work unless the Master code has been programmed in the system).

Optional Output Relays

- Up to 4 relays using one ADEMCO **4204 Relay Module**.
- Up to 2 relays using one ADEMCO **4229 Zone Expansion/Relay Module**.
- Actions programmable to respond to zone activity or manual keypad entries.

Optional Phone Module

- Supports the **4285/4286 Phone Module**.
- Provides access to the system via on-premises or off-premises phones for arming, disarming, etc., plus control of relay outputs.
- 4286 also provides remote temperature control of the premises using the 4500 thermostat.

Alarm Output

- Provides a 12VDC, 2A output that can drive the alarm sounders (assumes a fully charged battery is connected).
- Steady output for Burglary/Panic, or temporal pulse sounding output for Fire notification.

- Uses current-limiting circuitry for protection.
- Optionally supervised against wire open and short circuits with trouble sounding, display, and reporting.

Auxiliary Power Output

- Provides 12VDC, 500mA maximum. Uses current-limiting circuitry for protection.
- This output interrupts for smoke detector reset if 4-wire smoke detectors are used on basic wired zone 5 (if zone 5 is programmed for Fire).

Programming

- Programmed options are stored in electrically erasable, nonvolatile EEROM memory (information can be reprogrammed at any time and will not be lost in the event of a power loss).
- The system can be uploaded, downloaded, or controlled via an IBM compatible computer using ADEMCO's Compass Windows downloading software and a Hayes-compatible modem specified by ADEMCO.

Keypad programming consists of:

- Data field programming.
- Interactive (menu) mode programming.



For programming from a keypad, a 6139 2-line alpha keypad must be connected (but need not stay in the system).

Communication Formats Supported

- ADEMCO Contact ID.
- Audio format.

Zone Descriptors

- You can assign alpha descriptors to all zones (useful only when using alpha keypads and/or the **4285/4286 Phone Module**).

AC Mains Power Supply

- Uses 230VAC plugpack, Model XF1, with 16.5VAC, 25VA output.

Backup Battery

- Rechargeable sealed lead acid 12VDC, 6.5AH.

Installing the Control

In This Section

- ◆ Mounting the Cabinet
- ◆ Installing the Lock
- ◆ Installing the Control's Circuit Board Alone or with a Relay Unit
- ◆ Installing the Control and RF Receiver Circuit Boards Together
- ◆ Standard Phone Line Connections
- ◆ Wiring the AC Transformer
- ◆ Installing the Backup Battery
- ◆ Earth Ground Connections

Mounting the Cabinet

Mount the control cabinet to a sturdy wall using fasteners or anchors (not supplied), in a clean, dry area that is not readily accessible to the general public. Four mounting holes are provided at the back of the cabinet.

If you are using an RF receiver and you intend to mount its PC board within the cabinet, note the following:

- Do not mount the cabinet on or near metal objects. This will decrease RF range and/or block RF transmissions from wireless transmitters.
- Do not locate the cabinet in an area of high RF interference (revealed by frequent or prolonged lighting of the LED in the receiver after it is operational; random flicker is OK).

Installing the Lock (if used)

Use an ADEMCO No. N6277 Cam Lock and No. N6277-1 Push-On Clip (Retainer Clip).

NOTE: The cabinet can be closed and secured *without* a lock by using 2 screws in the cover's edge.

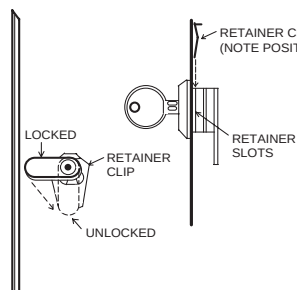


Figure 2–1. Installing the Lock

1. Remove the cabinet door. *It is easily removable for servicing and is easily re-installed.*
2. Remove the lock knockout from the control cabinet door. Insert the key into the lock. Position the lock in the hole, making certain that the latch will make contact with the latch bracket when the door is closed.
3. Hold the lock steady, and insert the retainer clip into the retainer slots. Position the clip as illustrated in order to permit easy removal.

NOTE: Before installing the cabinet's contents, remove the metal cabinet knockouts required for wiring entry. DO NOT attempt to remove the knockouts after the circuit board has been installed.

Installing the Control's Circuit Board Alone or with a 4204, 4219 or 4229 Relay Unit

Installing the Control's Circuit Board in the Cabinet

1. Hang two *white* mounting clips (provided) on the raised cabinet tabs (see Detail B in *Figure 2-2*).
2. Insert the top of the circuit board into the slots at the top of the cabinet. Make sure that the board rests on the correct row (see Detail A in *Figure 2-2*).
3. Swing the base of the board into the mounting clips and secure the board to the cabinet with the accompanying screws (see Detail B in *Figure 2-2*).
4. Plug the provided small telephone transformer module into the 2 connectors on the right side of the control board, component side inward (against the main board).

Installing the 4204, 4219 or 4229 Module in the Cabinet

Any one of these units can be mounted in the cabinet with the main control board, if used. See *Figure 2-2*.

1. Insert self-tapping screws (provided) in two adjacent raised cabinet tabs. Leave the heads projecting 3mm.
2. Hang the unit on the screw heads via two of the slotted holes at the rear of its housing, as shown in *Figure 2-2*.
3. The 4204's cover can be left off if the unit's DIP switch is set with its position 1 "ON" (to the right) as shown in its instructions. The 4219's or 4229's cover can be left off if the cover tamper jumper is placed in its upper (not tampered) position (see Detail C).

The tamper-protected cover is necessary for installations outside of the control's cabinet.

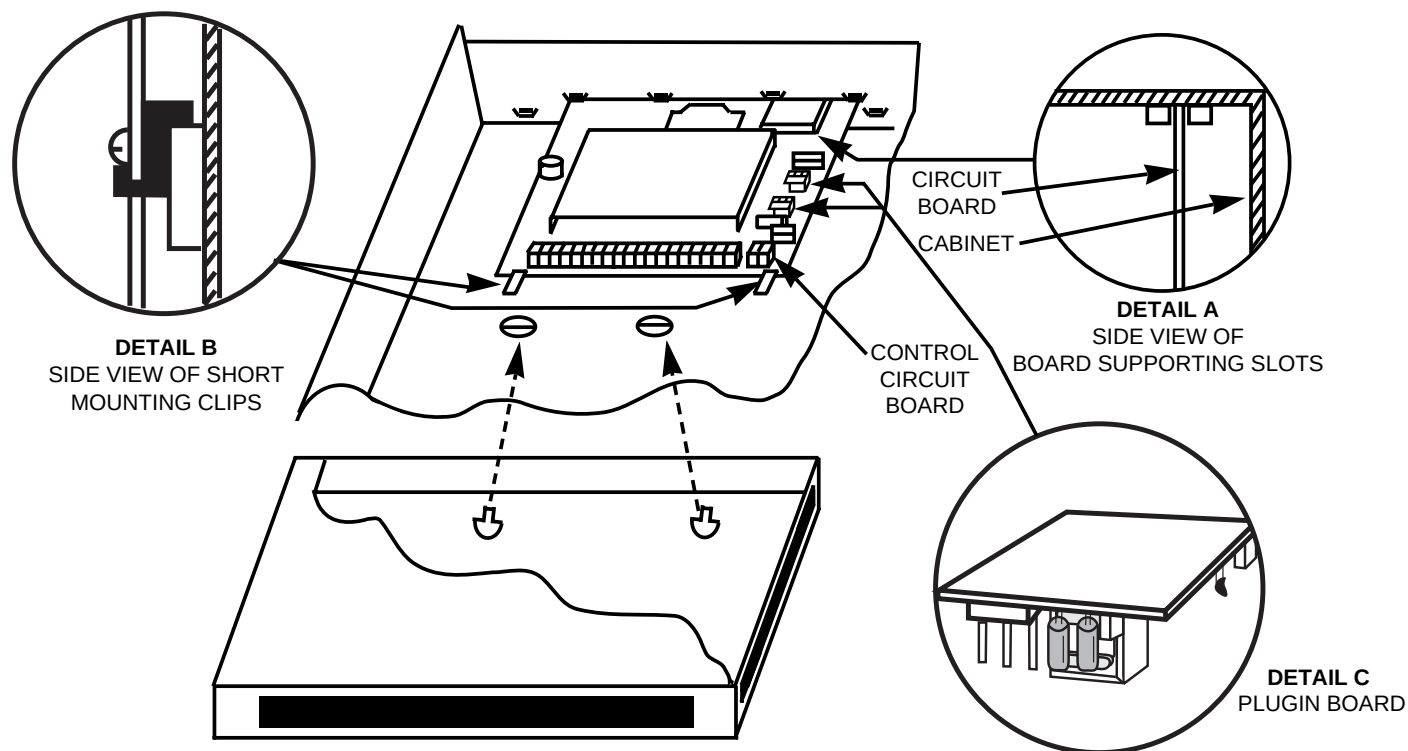


Figure 2-2. Installing the PC Board in the Cabinet Alone or (if used) with a 4204, 4219, or 4229

Installing the Control and RF Receiver Circuit Boards Together in the Cabinet

1. Hang two *short* (black) mounting clips (provided with receiver) on the raised cabinet tabs, as shown in Detail B in *Figure 2-3*.
2. Insert the top of the receiver board (removed from its own case as described in its

- instructions) into the slots at the top of the cabinet, as shown in Detail A in *Figure 2-3*. Make sure that the board rests on the correct row of tabs, as shown.
3. Swing the base of the board into the mounting clips and secure it to the cabinet with the accompanying screws (see Detail B in *Figure 2-3*).
 4. Insert the top of the control's board into the slot in the clips and position two *white* clips at the lower edge of the board (see Detail C).
 5. Swing this board into place and secure it with two additional screws.
 6. Insert grounding lugs (supplied with the receiver) through the top of the cabinet into the *left-hand* terminals of the antenna blocks (at the upper edge of the receiver board) and secure them to the cabinet top with the screws provided, as shown in Detail D.
 7. Insert the receiver's antennas through the top of the cabinet, into the blocks' *right-hand* terminals, and tighten the screws.
 8. For information about setup and wiring of the receiver, see *Section 6: WIRELESS (RF) ZONE EXPANSION (5800 RF SYSTEMS)*.

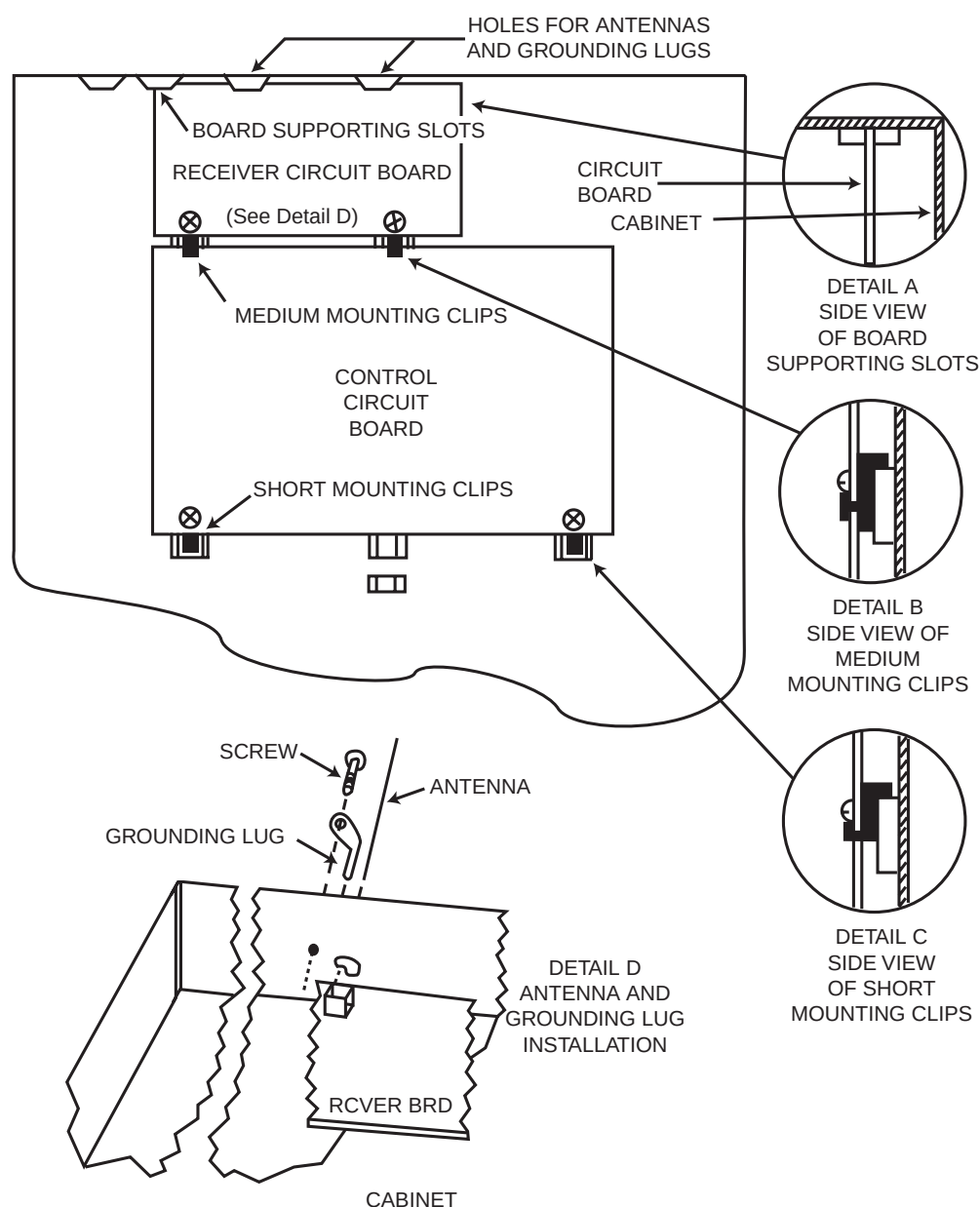


Figure 2–3. Installing the PC Board and RF Receiver (if used) Together in the Cabinet

Standard Phone Line Connections



The wiring connections shown here are not applicable if the 4285/4286 Phone Module is used. Refer to *Section 8: 4285/4286 PHONE MODULE* for information regarding phone line connections, which are different than those shown here.

Incoming phone line and local telephone wiring is connected to the panel's modular connector via a 611 jack, as shown in *Figure 2-4*.

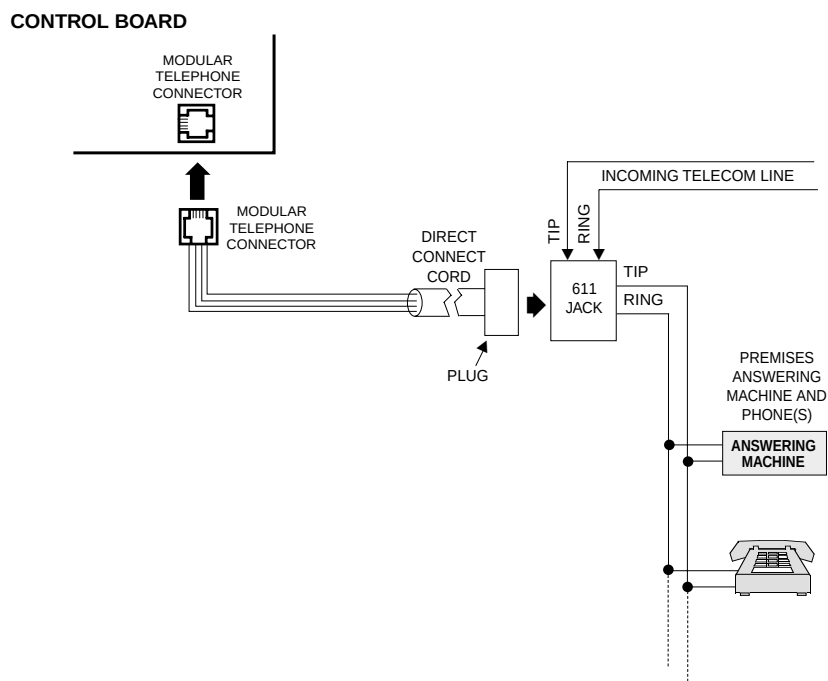


Figure 2-4. Standard Telephone Line Connections

Wiring the AC Transformer

Wire the mains plugpack transformer to terminals **1** and **2** on the control board. See the wiring table below for wire size to use.

Wiring Table

Distance of Transformer From Control Panel	Wire Size to Use
Up to 15m	.8mm
15-30m	1mm
30-75m	1.3mm



Wiring to the AC mains plugpack must not exceed 75m using 1.3mm wire. Do not plug the plugpack into the mains outlet until you are instructed to do so later in the manual.

Installing the Backup Battery

Place the 12-volt backup battery in the control cabinet. To calculate the correct battery size for an installation, refer temporarily to “Calculating the Battery Size Needed” in *Section 10: FINAL POWER-UP*.



Do not attach the connector cable to the terminals on the battery until you are instructed to do so later in the manual.

Earth Ground Connections

The designated earth ground terminal **(21)** must be terminated in a good earth ground for the lightning transient protective devices in this product to be effective. The following are examples of good earth grounds available at most installations:

Metal Cold Water Pipe:

Use a noncorrosive metal strap (copper is recommended) firmly secured to the pipe to which the ground lead is electrically connected and secured.

Earth Ground Rod:

Use a copper rod driven far enough into the ground to assure that good earthing has been achieved.

Installing Remote Keypads

In This Section

- ◆ Keypads That May Be Used
- ◆ Wiring to the Keypads
- ◆ Mounting the Keypads
- ◆ Supplementary Power for Additional Keypads
- ◆ Preliminary Checkout Procedure

Keypads That May Be Used

You may use up to 4 keypads, independent of auxiliary power considerations (you may need to use an auxiliary power supply if the 500mA aux. output is exceeded). The following keypad models may be used:

- fixed-word display: 6128, 6128RF, 6137
- alpha display: 6139



Be sure the keypads are set to the Non-addressable mode (address 31).

Wiring to the Keypads

1. Determine wire size by referring to the wiring length/size chart below.

For devices (keypads, RF receivers, expansion/relay units, etc.) connected to a single 4-wire run, determine the current drawn by all units connected to the single wire run, then refer to the “Wiring Chart” to determine the maximum wire length that can be safely used for each wire size. Current drain for all devices can be found in *Section 17: SPECIFICATIONS AND ACCESSORIES*.

NOTE: Refer to “Auxiliary Device Current Drain Worksheet” in *Section 10: FINAL POWER-UP* for current drain for all keypads.



You can also determine from the chart the maximum wire lengths for any device that is wired back to the control, based on the current drain of that device alone.

Wiring Chart for Devices* Drawing Aux Power from the Control (12V+ & 12V–)

	TOTAL CURRENT DRAIN OF ALL DEVICES CONNECTED TO A SINGLE WIRE RUN			
Wire Size	50mA or less	100mA	300mA	500mA
0.64mm	150m	75m	25m	15m
0.81mm	230m	115m	40m	25m
1.0mm	400m	200m	65m	40m
1.3mm	450m	300m	100m	70m

*Includes keypads, RF receivers, expansion/relay units, or the 4285/4286 Phone Module.



The length of all wire runs must not exceed 450m when unshielded quad conductor cable is used (225m if screened cable is used). This restriction is due to the capacitive effect *on the data lines* when quad cable is used.

- Run field wiring from the control to the keypads (using standard 4-conductor twisted wire cable using the wire size determined in step 1).
- Connect remote keypads to terminals 4, 5, 6, and 7 on the control board.

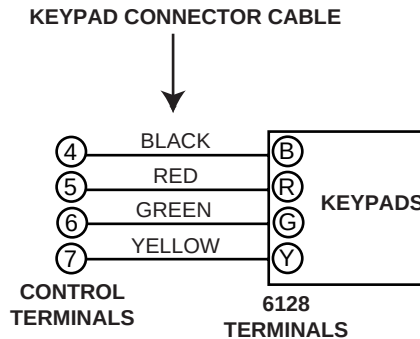


Figure 3-1. Keypad Connections to the Control Board

Mounting the Keypads

- Make sure keypads** are set to Non-addressable mode (address 31), which is the factory default setting. Refer to the instructions provided with the keypad for address setting procedure.
- Mount the keypads** at a height that is convenient for the user. Refer to the instructions provided with the keypad for mounting procedure.
Refer to the mounting instructions and template included with the keypad for specific information.

Supplementary Power for Additional Keypads

The control provides 500mA for powering keypads (up to 4) and other devices from the auxiliary power output. The backup battery will supply power to these keypads in the event that mains power is lost.

When the control's auxiliary power load for all devices exceeds 500mA, you can power additional keypads from a regulated 12VDC power supply.



Keypads powered from supplies that do not have a backup battery **will not function** when mains power is lost. Therefore, be sure to power at least one keypad from the control's auxiliary power output.

Connect the additional keypads as shown in *Figure 3-2*, using the keypad wire colors shown. Be sure to observe the current ratings for the power supply used.

Make connections directly to the screw terminals as shown in *Figure 3-2*. Make no connection to the keypad blue wire (if present).

Be sure to connect the negative (–) terminal on the power supply unit to terminal 4 (AUX –) on the control.

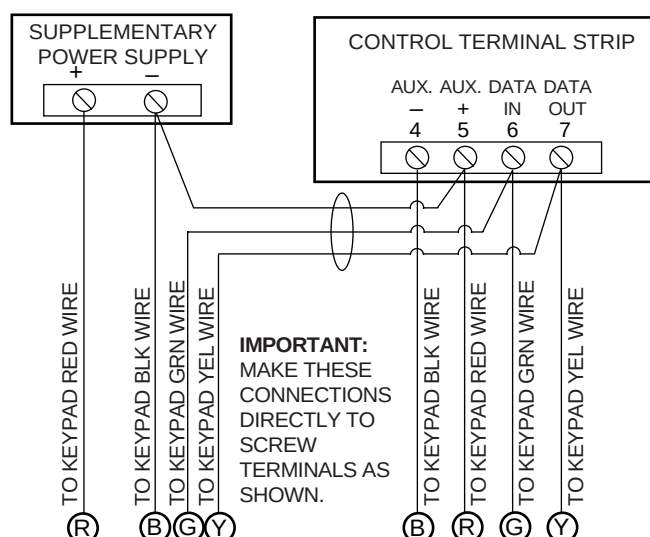


Figure 3–2. Using a Supplementary Power Supply for Keypads

Preliminary Checkout Procedure

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

1. Temporarily connect a 1000-ohm end-of-line resistor across each of the basic wired zones 1–6, as shown in the Summary of Connections diagram.
Without actual zone wiring or EOL resistors connected, the keypads in the system will not display the “READY” message.
2. Power up the system temporarily by plugging the AC plugpack (previously wired to the control) into an unswitched 230VAC outlet.
3. **“BUSY – STANDBY”** (on alpha keypads) or **“dI”** (on fixed-word keypads) will be displayed.

After approximately 1 minute,* the green “READY” LED should light, and the word “READY” (on fixed-word keypads), or “DISARMED...READY TO ARM” (on alpha keypads) should be displayed.

* To bypass the 1-minute delay, press [#] plus 0.

If the “READY” display does not appear on any of the keypads in the system, or a “NOT READY” message is displayed, check the keypad wiring connections, and make sure each of the 6 basic wired zones has a 1000-ohm resistor connected across its terminals.

4. When you get the proper “READY” displays on the keypad(s), the system is functioning properly.

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



If the keypad displays an “OC” or “OPEN CIRCUIT” message, data from the control is not reaching the keypad. Check the wiring.

Basic Wired Zones 1-6

In This Section

- ◆ Installing the Basic Wired Zones
- ◆ Wiring Burglary and Panic Devices to Zones 1-6
- ◆ Wiring 4-Wire Smoke/Combustion Detectors on Zone 5
- ◆ Programming Basic Wired Zones
- ◆ Checkout Procedure for Basic Wired Zones (1-6)

Installing the Basic Wired Zones

Common Characteristics for Zones 1–6

- Response time from 400 milliseconds, nominal.
- Zone 3 can be programmed (in field *52) for normally-closed sensor fast response (10mSec max) to an open (suitable for vibration-type sensors). Default response is 400mSec nominal, which should be used for most sensors.
- EOLR-supervised zones supporting both open-circuit and closed-circuit devices.
- As many 4-wire smoke detectors as can be powered from Aux Power on the control (in zone 5).

Wiring Burglary and Panic Devices to Zones 1–6

1. Connect sensors/contacts to the wired zone terminals 8–16 (zones 1-4 and zone 6). See the Summary of Connections diagram.
2. Connect closed-circuit devices in series in the high (+) side of the loop. The EOL resistor must be connected in series with the devices, following the last device. See the Summary of Connections diagram.
3. Connect open-circuit devices in parallel across the loop. The 1,000-ohm EOLR must be connected across the loop wires *at the last device*.



If the EOLR is not at the end of the loop, the zone will not be properly supervised, and the system may not respond to an open circuit in the zone.

Wiring 4-Wire Smoke/Combustion Detectors on Zone 5

The system will support as many 4-wire detectors as can be powered from Auxiliary Power on the control in zone 5. Refer to the detector's instructions for complete details regarding its proper installation and operation.

1. Connect 12-volt power for the detectors from Auxiliary Power terminals **4** and **5** (which will interrupt power for fire alarm reset). Observe proper polarity when connecting detectors. See *Figure 4-1*.
2. Connect detectors (including heat detectors, if used) across terminals of zone 5. All detectors must be wired in parallel. You should use a supervisory module to supervise

power (e.g., System Sensor No. A77-716B Relay module) to the smoke detectors.



Remove the 1000-ohm EOL resistor if connected across zone 5 terminals. You must connect the EOL resistor across the loop wires at the last detector.

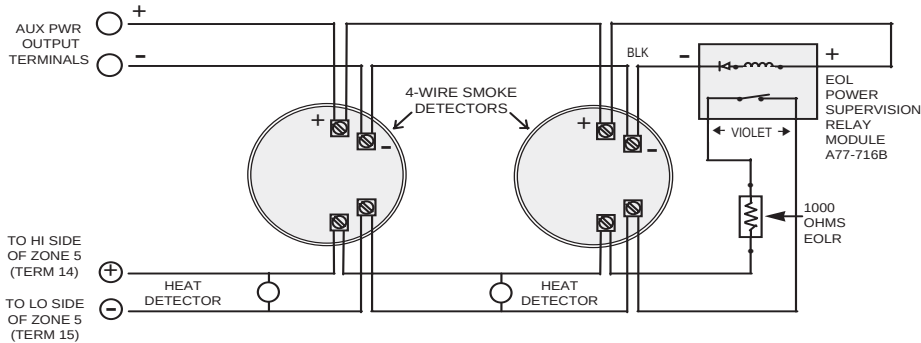


Figure 4-1. 4-Wire Smoke Detector Connections to Zone 5

Compatible System Sensor 4-Wire Smoke/Combustion Detectors Table

Model	Description
1412	4-wire ionisation products of combustion detector.
A77-716B	EOL relay module (supervisory module for wired 4-wire fire zone).
2112/24T	Low-profile 4-wire photoelectric smoke detector with 135° F (57° C) heat detector.

Programming Basic Wired Zones

1. With at least one 2-line alpha keypad (6139) connected to the keypad terminals on the control, power up the system temporarily. If you previously connected the plugpack to the control panel, you need only plug it in to AC mains to power up the system.
2. Enter the Programming mode by keying the following on the alpha keypad: **Installer code (4 1 1 1) + 8 + 0.**



Data fields *22 RF SYSTEM and *25 WIRED EXPANSION/RELAY USED must be programmed as required before continuing.

3. **Press *56.** Note that this is an Interactive programming mode. You will use it to program zone numbers, zone types, and Alarm Report codes for wired zones.

NOTE: If you enabled the 5800 Wireless System in field *22 (a “1” entry), the first screen prompt will be “**Program Tool?... 0 = No 1 = Yes.**” Enter **0** (No). The next prompt will ask you to enter zone number.

Enter Zn Num.
(00 = Quit) 01

Default Zone Number
after entering *56

Typical summary display

Zn ZT – RC In L
03 03 – 10 HW: –

– Zone Number

03 Zone Type
Perimeter 03

Zone Type

00 = Zone Not Used
01 = Entry/Exit #1
02 = Entry/Exit # 2
03 = Perimeter
04 = Interior Follower
05 = Trouble Day/Alarm Night
06 = 24-Hr Silent
07 = 24-Hr Audible

08 = 24-Hr Aux
09 = Fire
10 = Interior w/Delay

20 = Arm-Stay 0 5800
21 = Arm-Away 0 RF
22 = Disarm 0 Only
23 = No Alarm
Response

Enter the first zone number that you wish to program (or **00** to exit zone programming). If you are starting with zone 1, leave as is **and press [*] to continue.**

If you are programming another zone, enter the desired zone number; e.g., 02, 03, etc. (zone 03 is shown in the next display). **Press [*] to continue.**

A summary display will appear, showing the present status of that zone's programming.

Zn = zone number.

ZT = zone type.

RC = Report code for that zone.

In = input type of zone (HW will be displayed).

Values displayed are currently programmed values. The summary display at the left shows the default values.

If it is programmed satisfactorily, press [#] to back up one step and enter the next zone number.

If you want to change a zone's programming, press [*]. A prompt for zone type will appear.

Each zone must be assigned a zone type, which defines the way in which the system responds to faults in that zone. See "Response Type Definitions" section in the separate **Programming Guide** for an explanation of each zone type.

Enter the desired Zone Type code, from the list on the next page.

The example on the left shows zone type "03" (Perimeter) entered (this is the default for zone 3).

Zone Types

When the display shows the zone type you want, press [*] to continue.



You must enter **00** as the **zone type** for any wired zones that are not used.

03 Report Code
1st 03 2nd 12 3C

The report code consists of 2 hexadecimal digits, each consisting of 2 numerical digits. To enable a report, the first hex digit must be non-zero. Any code can be entered for record purposes. Refer to *Section 13: SYSTEM COMMUNICATION* for complete information on report codes, if necessary.

Enter the desired report code and then press [*] to continue.

Typical summary display

Zn	ZT	–	RC	In	L
03	03	–	3C	HW:	–

A summary display will appear, showing the data for the zone that was just programmed.

If it is programmed satisfactorily, press [*] to continue.

Program Alpha?		
0 = No	1 = Yes	0

The next request is to enter alpha descriptors for the zones. You may make the entry now (enter **1**), or at a later time using ***82** Interactive mode (enter **0**). See *Section 11: ALPHA DESCRIPTOR PROGRAMMING* for specific procedure.

Enter Zn Num.	
(00 = Quit)	04

If you entered **0** (No) above, the system will return to the “**Enter Zn Num.**” prompt. Proceed with the programming for the next zone, i.e., [*] and zone number.

Enter next zone number

Programming Panic Keys

When programming zones, note the following:

The defaults for Panic key pairs or individual Panic keys are:

Zone 07. [*] and [#], or B: zone type 06 (24 Hr Silent).

Zone 95. [1] and [*], or A: zone type 00 (not used).

Zone 96. [3] and [#], or C: zone type 00 (not used).

Panic keys are programmed (or reprogrammed) by keying the zone number, e.g., ***07**, ***95**, and ***96**, and entering the desired zone type that will provide the desired Panic function for each of these keys, using the list of zone types below.

06 = 24-Hr Silent

07 = 24-Hr Audible

08 = 24-Hr Aux

09 = Fire

When you have programmed all the basic wired zones and Panic keys satisfactorily, exit ***56** Interactive mode at the “**Enter Zn Num.**” prompt by entering **00** as the next zone number.

Then exit the programming mode by keying ***99**.

See the special notes below, then proceed to the checkout procedure that follows.

Special Notes on Zone Programming

- *In field *56, at the summary line for each zone, you can check the entered values.* If you wish to change anything, press [#] to move to the previous entry. Press [#] a number of times to move to earlier entries. Press [*] to move to later entries again.
- *You can review zone entries* by pressing [#]**56**. Changes cannot be made here, so this is safer for review. Enter the first zone number to be viewed and press [#]. To view each zone, press [#] and the zone number will advance to the next programmed zone. When you reach the end of the list, press **00** to exit. You may also use this method of exiting at any time during the review.
- *To remove a zone from the system either temporarily or permanently,* go into programming mode and press [*]**56**. Enter the zone number and press [*]. At the “**Zone Type**” prompt, enter **00** and [*]. This sets the type of the zone to Not Used. The next prompt will be “**Delete Zone?**”. “Yes” will permanently remove the zone from the system, while “No” will disable it but retain all data except the original zone type. You can then go back to this zone later and put back an active zone type to re-enable it.

Checkout Procedure for Basic Wired Zones (1–6)

After you have completed installation and wiring of all devices/sensors on the basic wired zones, you should check the system, as follows.

1. Make certain that all devices and sensors connected to the basic wired zones are not in a faulted state. Doors and windows with contacts should be closed, PIRs should be covered (use a cloth to mask them temporarily, if necessary).
2. Plug in the mains plugpack if you have not already done so.
3. With all basic wired zones intact, the alpha keypad connected to the system should display:

*** DISARMED ***
READY TO ARM

If the keypad displays this:

DISARMED Press ★
to show faults

press the [★] key to display the faulted zone(s). Restore any faulted zone(s) as necessary. (Also make sure that you have connected a 1000-ohm EOL resistor across the terminals of any unused basic wired zones.)

When the “DISARMED/READY TO ARM” message is displayed, you can proceed to the next step.

4. Fault and then restore every contact or sensor on each zone individually to ensure that it is being monitored by the system. Each time a zone is faulted, the keypad should display the number of the faulted zone. When each zone is restored, the “READY TO ARM” message should appear again.
5. When you get the proper displays on the keypad(s), the basic wired zones in the system are functioning properly.

Wired Zone Expansion

In This Section

♦ *Installing Zone Expansion Units*

♦ *Programming Wired Expansion Zones*

♦ *Connections and Setup*

♦ *Checkout Procedures for Wired Expansion Zones*

Installing Zone Expansion Units

You can add an 8-zone wired expansion EOLR unit to the control's 6 basic wired zones, for a total of 14 wired zones, by using a **No. 4219 Wired Expansion Unit** or **4229 Wired Expansion/Relay Unit**.

Location

- You can mount an expansion unit within the control cabinet if space permits. Otherwise, mount the unit outside the cabinet.

Supervision

- Units are supervised against removal. Keypads will display **"CHECK"** and zone **"09"** if a zone expander is disconnected.
- Units have tamper protection for security when mounted outside of the cabinet.

Zone Information

- Assign zone numbers 10–17 for the eight wired expansion loops (designated A to H). You can program these zones individually (in *56 Interactive mode, as indicated in "Programming Wired Expansion Zones" later in this section).

Connections and Setup

1. Connect the 4219 or 4229 module to the control's keypad terminals (see diagram below).
2. **Set the 4219 or 4229's DIP switch for device address "1"** (switch 2 "OFF" and switches 3, 4, 5 "ON"). Switch 1 determines expansion zone A's response time ("ON" = normal response, "OFF" = fast response). For location of the DIP switch in either unit, see the diagram below.

For additional information, see instructions supplied with the 4219 and 4229.

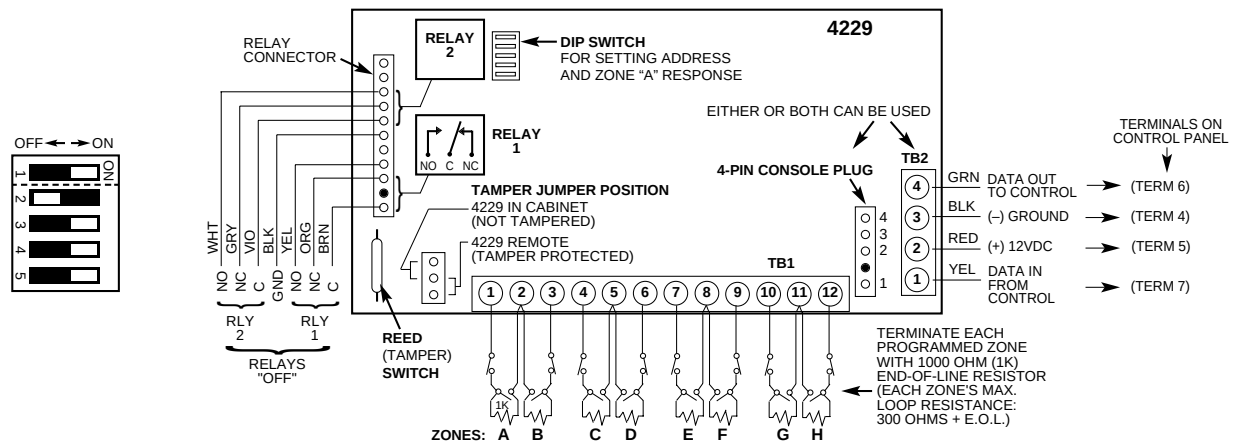


Figure 5-1. Wiring Connections, 4219 & 4229 (4229 shown)

Programming Wired Expansion Zones

1. With at least one 2-line alpha keypad (6139) connected to the keypad terminals on the control, power up the system temporarily. If you previously connected the plugpack to the control panel, you need only plug in it in AC mains to power up the system.
2. Enter the programming mode by keying the following on the alpha keypad: **Installer code (4 1 1 1) + 8 + 0.**



If the system is using RF zones or wired expansion, you must program data fields *22 RF SYSTEM TYPE and *25 WIRED EXPANSION/RELAY USED as required before continuing (see Programming Form in the separate **Programming Guide**).

3. **Press *56.** Note that this is an Interactive programming mode. It is used to program zone numbers, zone types, and alarm report codes for all zones that are going to be used.
NOTE: If you enabled the wireless system in field *22 (a "2" for 5800), the first screen prompt will be "**Program Tool?... 0 = No 1 = Yes**" (if 5800 was selected).
4. Enter **0** (No). The next prompt will ask you to enter a zone number.

Enter Zn Num.

(00 = Quit) 10

Zone Number

Enter the first zone number that you wish to program (or **00** to exit zone programming). Normally, you will be starting with zone 10 (this is the default).

Press [*****] to continue.

Zn	ZT	RC	In	L
10	00	-	00	RF: 1

A summary display will appear, showing the present status of that zone's programming.

Zn = zone number.

ZT = zone type.

RC = report code for that zone.

In = input type of zone (AW for Aux Wired).

L = loop (not used for wired expansion zones).

Values in the summary display are the currently programmed values.

To start programming zone 10, press [*****]. A prompt for zone type will appear.

10 Zone Type	
Perimeter	03

Zone Type 03 entry shown

Each zone must be assigned a zone type, which defines the way in which the system responds to faults in that zone. A detailed explanation of each zone type is provided in “Response Type Definitions” in the separate **Programming Guide**.

Enter the desired zone type from the list below.

00 = Zone Not Used	06 = 24-Hr Silent
01 = Entry/Exit #1	07 = 24-Hr Audible
02 = Entry/Exit #2	08 = 24-Hr Aux
03 = Perimeter	09 = Fire
04 = Interior Follower	10 = Interior w/Delay
05 = Trouble Day/Alarm Night	23 = No Alarm Response

When the display shows the zone type you want, press [**★**] to continue.

10 Report Code	
1st 03 2nd 00	30

The report code consists of 2 hexadecimal digits, each consisting of 2 numerical digits. For example, to enable a report code, enter **03** for “3” and **00** in the 2nd digit. Refer to *Section 13: SYSTEM COMMUNICATION* for complete information on report codes, if necessary.

Enter the report code enable and then press [**★**] to continue.

10 Input Dev:	LP#
AUX WIRED	AW: 1

At the “**Input Dev:**” prompt, enter **2** (AUX Wired) as the input device. The display on the left will appear.

Press [**★**] to continue.

Typical summary display

Zn	ZT	RC	In	L
10	03	–	30	AW: –

A summary display will appear, showing the data for the zone that was just programmed. Note that AW indicates an auxiliary wired (zone expansion module) zone.

If it is programmed satisfactorily, press [**★**] to display the next prompt.

Program Alpha?	
0 = No 1 = Yes	0

For all zone types, the next request is to enter alpha descriptors for the zones. You may make this entry now (enter **1**) or at a later time using ***82** Interactive menu mode (enter **0**). We recommend that you enter alpha descriptors later using ***82** menu mode.

See *Section 11: ALPHA DESCRIPTOR PROGRAMMING* for specific procedure.

Enter Zn Num.	
(00 = Quit)	11

Enter next zone number

If you entered **0** (No) above, the system will display a prompt for entry of the next wired expansion zone number. Proceed with the programming for the next zone, as indicated previously.

When you have programmed all wired expansion zones satisfactorily, exit ***56** mode at the “**Enter Zn Num.**” prompt by pressing **00 ★**.

Exit the programming mode by keying ***99**.

Proceed to the checkout procedure that follows.

Checkout Procedure for Wired Expansion Zones

After you have completed installation of all devices, check all wired expansion zones as follows:

1. Make certain that all devices and sensors connected to the wired expansion zones are not in a faulted state. Doors and windows with contacts should be closed, PIRs should be covered (use a cloth to mask them temporarily if necessary).
2. With all zones intact (including basic wired zones), the alpha keypad connected to the system should display:

***** DISARMED *****
READY TO ARM.

If the keypad displays this:

DISARMED Press *
to show faults

press [*] to display the faulted zone(s). Restore any faulted zone(s) as necessary.

When the "READY TO ARM" message is displayed, you can proceed to the next step.

3. Fault and restore every contact or sensor in each expansion zone individually to ensure that it is being monitored by the system. Each time a zone is faulted, the keypad should display the number of the faulted zone (as programmed by you just previously in *56 mode). When each zone is restored, the "READY TO ARM" message should appear again.
4. When you get the proper displays on the keypad(s), the wired expansion zones in the system are functioning properly.



If the keypad displays a "CHECK 09" message, data from the control is not being received by the zone expander module. Check your wiring and DIP switch settings.

Wireless (RF) Zone Expansion

(5800 RF Systems)

In This Section

- ◆ *Wireless Systems Available*
- ◆ *Wireless System Operation and Transmitter Supervision*
- ◆ *Receiver Supervision*
- ◆ *Wireless System Installation Advisories*
- ◆ *Installation and Setup of the 5881 Wireless Receivers*
- ◆ *Installing the 5800TM Module*
- ◆ *5800 Series Transmitter Setup*
- ◆ *Programming the RF Transmitters (5800 RF Systems)*
- ◆ *Enrolling 5800 Transmitters into the System*
- ◆ *Enrolling Through Zone Programming*
- ◆ *Removing a Zone from the System (5800 System)*
- ◆ *Deleting a Transmitter Serial Number from a Zone in *56 Mode*
- ◆ *Checkout Procedure for Wireless Zones*

Wireless Systems Available

The VISTA-10SEa supports wireless zones that may be used exclusively, or in addition to the basic wired zones 1 through 6.

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

Wireless System Receivers Table
5800 Series

Receiver	Wireless Zones
5881L	up to 8
5881M	up to 16
5881H	up to 16



Any zone *number* from 10–63 can be used as a 5800 Series wireless zone (do not confuse this with the number of zones that can be used, which is shown in the Wireless System Receivers Table above).

Wireless System Operation and Transmitter Supervision

The receiver responds to status and alarm signals from wireless transmitters (operating at 345MHz for 5800 Series, within a nominal range of 60m); the receiver then relays this information to the control.

Except for transmitters that may be carried off-premises (such as the 5800 system's 5802, 5802CP, 5804, 5804BD, 5827, and 5827BD), each transmitter is supervised by a check-in signal that is sent to the receiver at 70–90 minute intervals. If at least one check-in is not received from each *supervised* transmitter within a 12-hour period, the keypad will display the "missing" transmitter number(s) and "CHECK."

You may turn off the supervision for a particular transmitter in the 5800 system by entering it as a "UR" (unsupervised RF) type, as described later.

5800 Series intrusion transmitters have built-in tamper protection and will cause a "CHECK" condition to be annunciated if covers are removed in the disarmed mode, and will cause an "alarm" in any armed mode.

Each transmitter is also supervised for low battery, and will transmit a low-battery signal to its receiver when the battery having is low but has at least 30 days of life remaining. A low-battery message and appropriate zone number will appear on a wired keypad's display.

If a 5827 or 5827BD wireless keypad has a low battery, it will be displayed as Zone "00" when it transmits.

NOTE: After you replace a low or dead battery, activate the transmitter and then enter the security code + OFF to clear the system's memory of the "Low Battery" signal.

Transmitter Battery Life

- Batteries in the wireless transmitters may last from 4-7 years, depending on the environment, usage, and the specific wireless device being used. External factors such as humidity, high or low temperatures, and large swings in temperature may all reduce the actual battery life in a given installation. The wireless system can identify a true low-battery situation, allowing the installer or user of the system time to arrange a change of battery and maintain protection for that point within the system.
- Some transmitters (e.g., 5802 and 5802CP) contain long-life but nonreplaceable batteries. At the end of their life, the complete unit must be replaced (and a new serial number entered into the control).
- Button-type transmitters (e.g., 5802, 5802CP, 5804, 5804BD) should be periodically tested by the user for battery life.

Receiver Supervision

The receiver itself is supervised. The system will generate a tamper report (zone 9) if one of the following conditions exists:

- a. Communication with the receiver is interrupted.
- or
- b. Valid RF signals are not received within 12 hours from at least one *supervised* wireless transmitter (if any are included in the system).

Wireless System Installation Advisories

Disregard the following advisories if the receiver is mounted in the control cabinet as described in Section 2: INSTALLING THE CONTROL.

1. Place the receiver in a high, centrally located area for best reception. Do not place receiver on or near metal objects. This will decrease the range and/or block transmissions. Do not mount receivers or transmitters in an attic, where extreme temperatures could prevent proper operation.
2. You must enter the House IDs for the receiver (if you are using a 5827/5827BD wireless keypad in a 5800 RF system).

Installation and Setup of the 5881 Wireless Receivers

1. Mount the receiver(s) if you did not install them previously in the control cabinet, as indicated in *Section 2: INSTALLING THE CONTROL*. Receivers can detect signals from transmitters within a nominal range of 60m. Take this into consideration when

determining mounting location outside of the cabinet.

2. Make sure that the receiver's DIP switches are set for device address "0," as shown in *Figure 5-1* (all switches to the right: OFF).
3. Connect the receiver's wire harness to the control's keypad terminals (4, 5, 6, and 7). Plug the connector at the other end of the harness into the receiver (see *Figure 6-1*).

Refer to the receiver's installation instructions for further installation instructions regarding antenna mounting, etc.

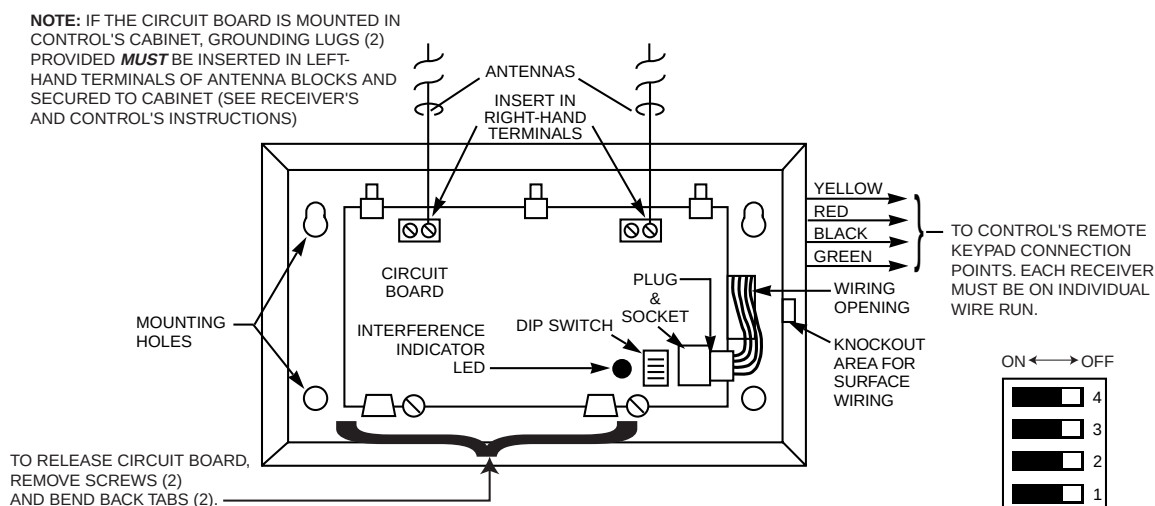


Figure 6-1. 5881 Series Wireless Receivers (cover removed)

Installing the 5800TM Module

Installation of this module is necessary only if you are using one or more 5827BD or 5804BD Wireless Bi-directional keypads.

The 5800TM must be located approximately 0.5m from the 5881 receiver's antennas. *The 5800TM must not be installed within the control cabinet.* Mount the unit using its accompanying mounting bracket.

5800TM Wiring Connections

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

Terminal Connections Table

WIRE	TERMINAL ON CONTROL
RED (+12VDC)	Terminal 5
BLACK (Ground)	Terminal 4
GREEN (Data to Control)	Terminal 6
YELLOW (Data from Control)	Terminal 7
BLUE: Not Used	

Do not cut any of the jumpers on the 5800TM when using it with the VISTA-10SEa.

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

5800 Series Transmitter Setup

General Information

5800 Series transmitters have built-in serial numbers that must be enrolled in the system using the *56 or *83 Interactive mode, or input to the control via the downloader. 5800 Series transmitters (except 5827, described separately) do not have DIP switches.

5800 Series Transmitter Input Loops

Each transmitter's zone number is programmed into the system in *56 mode. Some transmitters, such as the 5816 and 5817, can support more than one "zone" (referred to as loops or inputs). On the 5816, for example, the wire connection terminal block is loop 1, the reed contact is loop 2. Each loop must be assigned a different zone number and entered separately.

For button transmitters (wireless "keys"), such as the 5804 or 5804BD, you must assign a unique zone number to each individual button used on the transmitter. Each button on the transmitter also has a pre-designated loop or input number, which is displayed when entered.

Refer to "5800 Series Transmitter Input Loop Identification" in the separate Programming Guide manual.



Programming an RF House ID (01–31) in field *24 **is necessary only if you are using 5827 or 5827BD wireless keypads**. An RF House ID is not necessary for other 5800 Series transmitters; the entry should be left at "00" (default) in those cases.

The 5827 Wireless Keypad reports low-battery status as zone "00."

5800 Series Transmitter Input Types

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

5800 Transmitters can be entered into the system as one of the following input device types:

5800 Transmitter Input Device Type Chart

<i>Input Device Type</i>	<i>Description</i>
"RF" (Supervised RF)	Sends periodic check-in signals, as well as fault, restore, and low-battery signals. The transmitter must remain within the receiver's range.
"UR" (Unsupervised RF)	Sends all the signals that the "RF" type does, but the control does not supervise the check-in signals. The transmitter may therefore be carried off-premises.
"BR" (Unsupervised Button RF)	These send only fault signals. They do not send low-battery signals until they are activated. The transmitter may be carried off-premises.



Do not install batteries in wireless transmitters until you are ready to use the transmitters, as indicated in "Programming the RF Transmitters (5800 RF Systems)" later in this section. Though it is not critical to remove batteries after entering into the system, it is recommended in order to avoid interference while entering additional transmitters into the system.

Compatible 5800 Series Transmitters Table

Model	Product	Enter as Input Device Type	Description
5801	Wireless Panic Transmitter	UR or RF	- Has four pushbuttons, each with a unique input (loop) code. - Programmable responses (e.g., Panic, Arm-Stay, Arm-Away, Disarm, etc.).
5802	Pendant (Personal Emergency Transmitter)	BR only	- Has single pushbutton. - Usually programmed for response type of 24-Hr Audible or 24-Hr Silent (other zone responses are possible). - Contains a nonreplaceable battery. At the end of the battery's life, the entire unit must be replaced.
5802CP	Belt Clip (Personal Emergency)	BR Only	Same as 5802.
5802MN	Miniature	UR or RF	Has single pushbutton.
5802MN2	Miniature (Personal Emergency Transmitter)	UR or RF	- Has 2 pushbuttons that must be pressed simultaneously. - Usually programmed for a response type of 24-Hr Audible or 24-Hr Silent (other zone responses are possible).
5804	Wireless Key Transmitter	BR Only	- Has four pushbuttons, each with a unique input (loop) code. - Programmable responses (e.g., Arm-Stay, Arm-Away, Disarm, etc.).
5804BD	Bi-Directional Wireless Key	BR	- House ID must be set. - Requires 5800TM Transmitter Module. - Can indicate system status via its 2 LEDs and built-in sounder. - Has four pushbuttons, each with a unique input (loop) code. - Operates the system similarly to wired touchpads.
5806, 5807, 5808LST	Wireless Photoelectric Smoke Detectors	RF	- One-piece smoke detector with built-in transmitter. - 5808LST has built-in thermal circuitry to detect temperatures above 57°C, and tamper switch on base.
5814	Door/Window Transmitter	RF	- Has its own unique serial number assigned during manufacture. - Assigned to one zone.
5816 5816MN	Door/Window Transmitters	RF	Has two unique input (loop) codes: one for a wired closed circuit contact loop; the other for a built-in reed switch (used in conjunction with a magnet).
5816MC	Cash Drawer Transmitter	RF or UR (see Description)	- Switch-activated bill holder. Sends silent signal. - Has one unique input (loop) code. - Enroll as "UR" if used in metal cash drawer; enroll as "RF" if used in non-metal cash drawer.

Compatible 5800 Series Transmitters Table (Continued)

Model	Product	Enter as Input Device Type	Description
5816TEMP	Low-Temperature Sensor	RF	Transmits a fault condition when temperature drops below 7°C.
5817	Multi-Point Universal Transmitter	RF	Has three unique input (loop) codes: one for a “Primary” contact loop with programmable options; the others for two “Auxiliary” closed circuit contact loops.
5819	Shock Processor Transmitter	RF	- Connects to externally mounted inertia-type shock detector (not supplied). - Has built-in tamper cover switch. - Has 3 unique input (loop) codes: <i>Loop 1:</i> Terminals for a wired, N.C. sensor loop. <i>Loop 2:</i> For a closed-circuit contact loop using the built-in reed switch in conjunction with a magnet. <i>Loop 3:</i> Terminals for a wired, closed-circuit contact loop.
5819WHS 5819BRS	Shock Processor Transmitter	RF	- Has built-in shock sensor. - Has built-in tampered cover switch. - Has 3 unique input (loop) codes: <i>Loop 1:</i> Built-in shock sensor loop wired to TB1 (normally closed). <i>Loop 2:</i> For a closed-circuit contact loop using the built-in reed switch in conjunction with a magnet. <i>Loop 3:</i> Externally wired, closed-circuit contact loop connected to TB2.
5827	Wireless Keypad	House ID	- Can be used to turn the burglary protection on and off. - Features the same built-in panic functions as wired keypads. - The keypad is identified as zone “00” on wired keypads when it transmits a low battery.
5827BD	Wireless Two-Way Keypad (used with 5800TM)	House ID	- Operates the system similarly to wired keypads. - Can indicate system status via its 3 LEDs and sounder. - Includes 3 panic keys. - House ID must be set. - Requires 5800TM Transmitter Module.
5849	Glassbreak Detector	RF	Requires both sound and low-pressure flex wave of pre-breaking glass to cause alarm to be transmitted.
5850	Glassbreak Detector	RF	Requires both sound and low-pressure flex wave of pre-breaking glass to cause alarm to be transmitted.

Compatible 5800 Series Transmitters Table (Continued)

Model	Product	Enter as Input Device Type	Description
5890, 5890PI	PIR Detector	RF	Dual-element passive infrared detector/transmitter with selectable pulse count. PI version has 20Kg pet immunity. NOTE: There is a 3-minute lockout between fault transmissions to conserve battery life.
5899	Magnets		Package of 4 magnets for use with 5816 and 5817 transmitters.

Programming the RF Transmitters (5800 RF Systems)

1. With at least one 2-line alpha keypad connected to the keypad terminals, power up the system temporarily. If you previously connected the AC plugpack to the control panel, you need only plug the plugpack in (to 230VAC outlet) to power up the system.
2. Enter the programming mode by keying: **Installer Code + 8 + 0**.



Data field *22 RF SYSTEM TYPE must have been programmed for a 5800 RF system before continuing ("2" entered in that field).

3. ***24 RF HOUSE ID CODE.** The House ID identifies a 5827 or 5827BD Wireless Keypad if it is used (enter 01–31). The wireless keypads should be set to the same ID. If no wireless keypad is to be used, leave as "00."

Enrolling 5800 Transmitters into the System

There are two methods to enroll transmitters. The first is performed in *56 zone programming mode, which is described in this section. In *56 mode, you enroll each transmitter into the system as you are entering the zone information.

The second method is called "sequential mode," and uses *83 (described in *Section 12: SEQUENTIAL MODE*). In *83 mode, you enroll all the transmitters into the system *after all zone information has been entered*.

As an option, the zone programming and sequential modes allow you to use a 5804 **button-type** transmitter as a "program tool." The advantage of using a program tool is that it tells the control that you are about to enroll a transmitter into the system. You can move to the physical location of the transmitter to be enrolled, press the upper left-hand button of the program tool, and then trip the intended transmitter (see step 10 for operation). This helps to prevent random signals from being accepted into the system until you are ready to enroll the intended transmitter.

The transmitter that you use as the program tool can also be used as a transmitter in the system. If you plan to use an existing transmitter, you must first enroll it into the system as its associated zones. You may then program it as the tool.

Enrolling Through Zone Programming (*56)

1. Enter Programming mode [**Installer Code**] + **8 + 0**.

Enter Zone Programming by pressing *56. If the system has been set up to use 5800 Series RF, and a program tool has been entered, skip to step 4. If no program tool has been entered, the following prompt will appear:

Program Tool? 0 = No, 1 = Yes 0

2. If you are using a program tool, enter "1." If not, enter "0" and skip to Step 4.

```
00 Input S/N:  L
A X X X-X X X X
```

```
00 Input S/N:  L
A123-4567    3
```

```
Enter Zn Num.
(00 = Quit)    10
```

Zone 10 entered

```
ZN ZT - RC In: L
10 00 - 00 RF: 1
```

↪ Zone Number

```
10 Zone Type
Perimeter      03
```

Entry for Zone Type 03 shown

```
10 Report Code
1st 03 2nd 12 3C
```

3. If you entered "1," the system will prompt for the unit's serial number. Enter the program tool's serial number using one of the following methods:
 - a. Enter the 7-digit serial number for the transmitter.
 - or
 - b. Press any button on the transmitter. The keypad should beep twice and display the serial number of the tool.

In this example, the serial number is A123-4567. Once the program tool is enrolled, the upper left-hand button of the tool can be pressed to ready the system for enrolling a transmitter into the system.

Pressing the [#] key on the keypad will cause the system to back up to the "Program Tool?" prompt.

The serial number for the program tool will remain in the system only until the programming mode is exited. (Entering *97 will not delete the tool.)

Press [*] to continue.

4. Enter the zone number that you wish to program. As an example, zone 10 is shown here.

Press [*] to continue.

5. A display will appear showing a summary of that zone's programming. If the zone is not programmed, the display will appear as shown here. If you are checking a zone's programming, and it is programmed satisfactorily, press [#] to back up one step and enter another zone number, if desired. Otherwise, press [*] to continue.

6. Each zone must be assigned a zone type, which defines the way in which the system responds to faults in that zone. Enter the zone type desired (or change it, if necessary). Available zone types are:

00 = Zone Not Used	08 = 24 Hr Aux
01 = Entry/Exit #1, Burglary	09 = Fire
02 = Not Used	10 = Interior w/Delay
03 = Perimeter	20 = Arm-Stay*
04 = Interior Follower	21 = Arm-Away*
05 = Trouble Day/Alarm Night	22 = Disarm*
06 = 24 Hr Silent	23 = No Alarm Response
07 = 24 Hr Audible	(e.g., Relay activation)

* These are special zone types used with 5800 Series wireless pushbutton units that will arm the system in the STAY or AWAY mode, or disarm the system, depending on the selection made. A button programmed for these functions will report to the central station the zone number of the button as the user number that armed/disarmed.

Press [*] to continue.

7. Enter the report code. The report code consists of 2 hexadecimal digits, each consisting of 2 numeric digits. For example, for a report code of "3C," enter [0][3] for "3" and [1][2] for "C."

(Refer to *Section 13: SYSTEM COMMUNICATION* for more information about report codes and report code

10 Input Dev: LP #
RF Trans. RF: 1

10 Input Dev: LP#
RF Trans. RF: 1

10 Learn S/N?
0 = No, 1 = Yes 0

10 Input S/N: L
A X X X-X X X X

10 Input S/N: L
A002-4064 1

formats.)

Press [★] to continue.

8. Enter the transmitter input device type as follows:

3 = RF (supervised RF transmitter)

4 = UR (unsupervised RF transmitter)

5 = BR (button type RF transmitter - unsupervised)

(Refer to the separate **Programming Guide** for input types.)

Press [★] to continue.

9. The cursor should now be flashing above the loop number. The default is "1." To accept this, press [★]. If a different loop number is being used on this transmitter, enter the loop number (1–4) and press [★] to continue (see the loop designations for various transmitters in the separate Programming Guide). **The loop number must be entered here, whether you are using Zone Programming or Sequential Mode to "enroll" transmitters.**

10. If the transmitter's serial number has not been previously "enrolled," you may enter the enrollment mode now by either entering "1" (Yes) **or** by pressing the upper left-hand button of the "program tool." **If you are using the program tool, move to the physical location of the transmitter to be enrolled before pressing the button.** A single short beep will verify that the button has been pressed. The system will respond to the first serial number transmitted after the [★] key on the keypad or the button of the program tool is pressed.

Enter "0" (No) if you wish to enroll the transmitter later, using the *SEQUENTIAL MODE* described in Section 12.

If you enter "0" (No), go to step 13 (skip steps 11 and 12).

11. This prompt is displayed if you entered "1" (Yes) in response to the "Learn S/N?" prompt. You may enroll the serial number by one of two methods:

- a. Enter the 7-digit serial number printed on the transmitter using an alpha keypad.

or

- b. Activate the transmitter by faulting **or** restoring the input you wish to use for that zone (e.g., press a button, open or close a door, etc.).

The system will enroll the serial number of the first transmitter heard, add the loop number entered to this serial number, display the serial and loop numbers, and cause the keypad to beep twice.



If the serial and loop number combination is already present in the system, the keypad will emit a single long beep. If this happens, the system will not display the serial number, but will wait for a transmission from another transmitter or transmitter loop input.

12. The system will then enter a confirmation mode so that

10 Confirmed A022- 4064 1

the operation of the actual programmed input can be confirmed. Activate the loop input or button that corresponds to this zone. **We recommend that you confirm the programming of every transmitter before proceeding to the next zone.**

When the system sees activity on the appropriate input, it will beep three times and display the confirmation message.



At any time during this step, you may press the [*] key on the keypad or the upper left-hand button of the program tool if you are satisfied with the serial and loop number combination that has been enrolled, regardless of whether or not the enrolled input has been "confirmed."

If the incorrect transmitter has been enrolled, press the # key on the keypad or the upper right-hand button of the program tool to delete the serial number and return to the "Learn S/N" prompt. The keypad will emit a single long beep to verify your pressing of the upper right-hand button. Then, press "1" (Yes) or press the upper left-hand button of the program tool (a single short beep will verify the system is ready for enrolling) and re-activate the proper transmitter or transmitter loop input.

ZN ZT – RC IN: L 10 03 – 00 RF: 1 s
--

13. The summary screen for the zone will appear. Note that an "s" indicates that a serial number has, in fact, been enrolled. The cursor will be flashing above the loop number. Press [*] to accept the zone information.

NOTE: If you entered "0" in step 10, you will not get an indication that the serial number has been enrolled.

If you want to delete the serial number, enter "0" and press [*]. The system will then prompt, "Delete S/N?" Press the "1" (Yes) key to complete the delete sequence. This process deletes the serial number only, **not** the loop number. The assumption is that the proper loop number was programmed, but the wrong serial or loop number was enrolled. To change the loop number, you must go back through zone programming for that zone and manually enter the loop number over the existing one.

Program Alpha? 0 = NO 1 = YES 0
--

14. If you want to program alpha descriptors now, enter "1" (Yes). See Section 11: *ALPHA DESCRIPTOR PROGRAMMING* for more information.

If not, enter "0" (No).

Enter Zn Num. (00 = QUIT) 11

This will bring you back to the "Enter Zn Num." prompt for the next zone. When you have programmed all zones, enter "00" to quit.

If you plan to enroll serial numbers in the sequential mode, enter "00" to quit, then go to *Section 12: SEQUENTIAL MODE* to enroll the serial numbers.



When you have finished programming all zones (including all serial numbers), test each zone using the system's TEST mode. Do not use the Transmitter ID Sniffer mode for this, as it will check only for transmission of one zone on a particular transmitter, and NOT the zones assigned to each additional loop.

Removing a Zone from the System Temporarily or Permanently (5800 System)

- Enter the programming mode:
Key **Installer Code + 8 + 0** and press [*][5][6].

2. Enter the zone number and press [★]. A summary display will appear.
3. Press [★] again.

20 Zone Type	
Not Used	00

20 Delete Zone?	
1 = Yes 0 = No	

4. The "Zone Type" prompt will appear. Enter [0][0]. This sets the zone type to "Not Used."
Press [★] to continue.
5. The next prompt will ask whether you want to delete the zone.
"Yes" will permanently remove the zone from the system, while a "No" will disable it but retain all data except the original zone type. You can return to this zone later and put back an active zone type to re-enable it.
A serial number that has been entered for a 5800 system will not be deleted if you temporarily disable the zone by answering "No" to the prompt above.
If only the physical transmitter is to be removed or changed (i.e., its serial number deleted, as when replacing a unit that has a nonremovable battery), it can be done in ★56 Mode, as indicated next.

Deleting a Transmitter Serial Number From a Zone in ★56 Mode (5800 System)

You can use the abbreviated procedure below to delete a serial number from a zone, using the ★56 Mode.

1. In the programming mode, press [★][5][6] to enter Zone Programming mode.
2. Enter the zone number and press [★] repeatedly until the cursor is under the RF Input Loop (L) position. This is the specific input (loop) or button on the transmitter that has been entered for that zone.
3. Enter a [0] at this point, then press [★].
4. A prompt "Delete S/N?" will appear.
Enter "Yes" to delete the existing serial number from the system.
Note that the other programmed values for that zone will not be deleted. This will allow you to reinstate a new transmitter in its place.
5. A display for the next zone number will appear. To exit, enter "00."
6. Press ★99 to exit the programming mode.

Checkout Procedure for Wireless Zones

Transmitter ID Sniffer Mode (5800 RF Systems)

When you have installed all transmitters, use the Transmitter Sniffer mode to test that they have all been properly programmed.

1. Enter **Installer Code + # + 3**. The keypad will display 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 will **disappear** from the display.
3. To exit the Transmitter Sniffer mode, enter the Installer Code + (OFF).



If a 5800 Transmitter is not enrolled, its zone number will not turn off.

Go/No Go Test (5800 RF Systems)

Before mounting transmitters permanently, conduct Go/No Go tests to verify adequate signal

strength and reorient or relocate transmitters if necessary.

During this mode, wireless receiver gain is reduced by 50%. Testing in this mode assists in determining good mounting locations for the transmitters, and verifies that the RF transmission has sufficient signal amplitude margin for the installed system.

1. Enter the **Installer Code + # + 4**.
2. Once transmitters are placed in their desired locations and the approximate length of wire to be run to sensors is connected to the transmitter's screw terminals, fault each transmitter. *Do not conduct this test with your hand wrapped around the transmitter, as this will cause inaccurate results.*
 - The keypad will beep three times to indicate signal reception.
 - If the keypad does not beep, re-orient or move the transmitter to another location. Usually a few centimeters in either direction is all that is required.
3. Mount the transmitter according to the instructions provided with the transmitter.
4. Exit the Go/No Go test mode by entering Installer Code + (OFF).

Relay Outputs

In This Section

- ◆ *Relay Device Basics*
- ◆ *4204 and 4229 Relay Modules*
- ◆ *Programming Options Defined*
- ◆ *Programming Output Relays*

Relay Device Basics

Relays are programmable switches that can be used to perform many different functions. They can be used to turn lights on and off, control sounders, or indicate status. In this system, each relay must be programmed as to how to act (ACTION), when to activate (START), and when to deactivate (STOP). Each of these is described below and in the programming procedure for *80 and *81 Interactive modes that are described at the end of this section.

The control supports the following relay modules:

- 4204 Relay Module (4 relays).
- 4229 Zone Expander/Relay Module (2 relays).

The 4204 and 4229 relays provide Form C (normally open and normally closed) contacts.

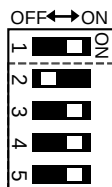


A 4204 cannot be used if a 4219 or 4229 is already being used.

In *80 and *81 Interactive modes, a series of keypad prompts will request entries for programming of the relay outputs used in the system. Refer also to "Output Relays Worksheet for Fields *80 and *81" in the blank programming form provided in the separate **Programming Guide**.

4204 and 4229 Relay Modules

4204/4229 Setup



You can mount the 4204 unit either remotely or in the control panel. To set up the 4204 properly, take the following steps:

1. **Connect the 4204 or 4229 module to the control's remote keypad terminals** (4–7), using the connector supplied with the module. Use standard 4-conductor twisted cable for long wiring runs.
2. **Set the 4204 or 4229's DIP switch for a device address of "1"** (switch 2 "OFF" and switches 3, 4, and 5 "ON"). Switch 1 determines the unit's cover tamper response ("ON" = disabled, "OFF" = enabled).
3. **Connect the desired field wiring** to the unit's relay contact terminals. See *Figures 7-1 and 7-2*.

Supervision

The 4204 and 4229 modules are supervised against removal. The keypad will display **"CHECK"** and zone **"09"** if a module is disconnected from the control's keypad terminals (4, 5, 6, and 7).

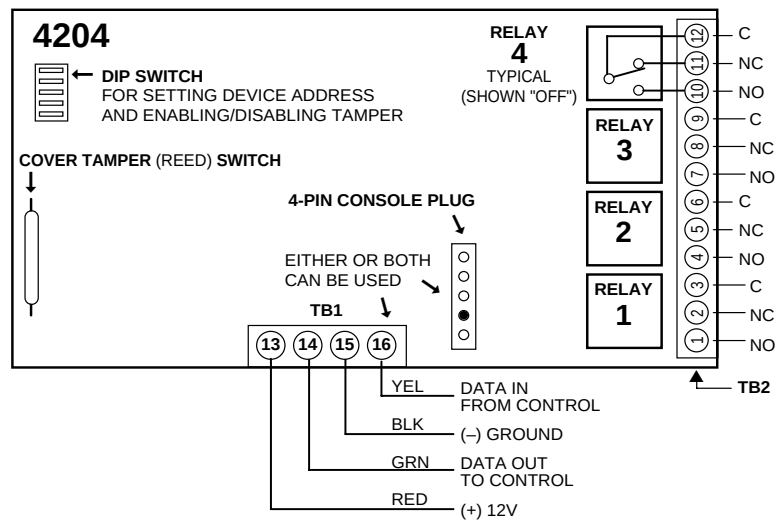


Figure 7-1. 4204 Connections to Control

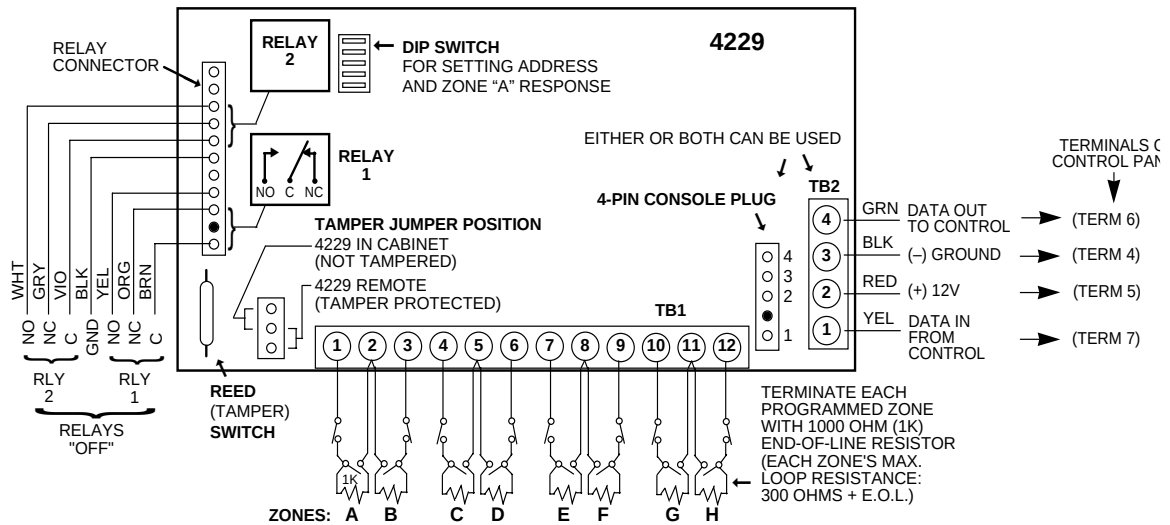


Figure 7-2. 4229 Connections to Control

Programming Options Defined

The following will help you understand the programming of output relays when you are using *80 and *81 Interactive menu modes. The options used to start and stop relays are described below, followed by the actual screen prompts and available entries.

The letter(s) in parentheses after each function described below, such as (A) after ACTION, are those that appear in the various summary displays of programmed data during programming.

ACTION (A) The "ACTION" of the relay is how the relay will respond when it is activated by the "START" programming. You may want the relay to activate momentarily, to pulse on and off continuously, or to remain activated until some other event occurs to stop it. There are four different choices of actions:

- ACTIVATE for 2 SECONDS and then reset.
- ACTIVATE and REMAIN ACTIVATED until stopped by some other event.
- PULSE ON and OFF until stopped by some other event.
- NOT USED when the relay is not used.

START (STT) The "START" programming determines when and under what conditions the relay will be activated. The following START options are available:

- A) 1. **EVENT (EV)** is the condition (alarm, fault, trouble) that must occur to a zone or group of zones (zone list) in order to activate the relay. These conditions apply **only** when a zone list is used. The different choices for "EVENT" are listed below and in the "Programming Output Relays" paragraphs that follow.
- **ALARM** Relay action begins upon any alarm in an assigned zone in the zone list.
 - **FAULT** Relay action begins upon any opening or short in an assigned zone in the zone list.
 - **TROUBLE** Relay action begins upon any trouble condition in an assigned zone in the zone list.
 - **NOT USED** Relay action is not dependent upon one of the above events.
2. **ZONE LIST (ZL)** is a group of zones to which the "EVENT" applies in order to activate a particular relay. Note that there are a total of 3 zone lists that can be programmed in field *81 mode; when the selected "EVENT" (alarm, fault or trouble) occurs in **any** zone in the selected "START" ZONE LIST (1, 2, or 3), activation of the selected relay will START.
- B) 1. **ZONE TYPE/SYSTEM OPERATION (ZT).** If you want a "SYSTEM OPERATION," such as "Disarming" or "Any Fire Alarm," to activate the relay, the appropriate choice would also be entered under the "ZONE TYPE" option. "ZONE TYPE" is used independently of the "EVENT/ZONE LIST" combination.
- If a specific "ZONE TYPE" is chosen, any zone of that response type going into alarm, trouble, or fault will cause the relay to activate as selected in "ACTION." If the same "ZONE TYPE" is also chosen for the "STOP" programming, any zone of that type that *restores* will deactivate the relay.
- If a "SYSTEM OPERATION" is chosen (e.g., "End of Exit Time"), that operation will cause the relay to activate as selected in "ACTION." The different choices for "ZONE TYPE" and "SYSTEM OPERATION" are listed in "Programming Output Relays" later in this section, and in the Programming Form in the separate **Programming Guide**.

STOP (STP): The "STOP" programming determines when and under what conditions the relay will be deactivated. The following options are available:

- A) 1. **RESTORE ZONE LIST (ZL).** If a "ZONE LIST" is used as the "STOP" event, the relay will deactivate when **all** the zones in that list restore from a previous fault, trouble, or alarm condition. This will occur regardless of what is programmed to "START" the relay; therefore, a "RESTORE ZONE LIST" would normally only be used when a "ZONE LIST" is used to start the relay.
- B) 1. **ZONE TYPE/SYSTEM OPERATION (ZT).** Instead of using a "RESTORE ZONE LIST," you can select a specific zone (response) type or system operation action to deactivate the relay.
- If you choose a specific "ZONE TYPE," any zone of that response type that restores from a previous alarm, trouble, or fault condition will cause the relay

to deactivate.

If you choose a "SYSTEM OPERATION," that operation will cause the relay to deactivate.

If the system uses relay outputs, two keypad entries available to the user are included among the "System Operation" choices that may be programmed (34 and 35). They can manually activate or deactivate the relay(s) for starting or stopping some action, such as turning lights on or off, etc.

These entries are: **[Security code] + [#] + 7**
and **[Security code] + [#] + 8**



Whichever entry is used to start the action cannot also be used to stop it. The opposite action must be performed either by the other keypad entry or by some other event or operation offered in the programming section.



If a relay is energized before a 4-wire smoke detector is reset, the relay will be stopped by the interruption of Aux. Power that resets the smoke detector. If this is not desired, the power to the relay unit should be supplied from another 12V power source (e.g., the same source that is powering external equipment through the relay contacts).

Programming Output Relays

1. With at least one 2-line alpha keypad (6139) connected to the keypad terminals on the control, power up the system temporarily. If you previously connected the mains plugpack to the control panel, you need only plug in the plugpack (to 230VAC outlet) to power up the system.
2. Enter the Programming mode by keying the following on the alpha keypad:
Installer code (4 1 1 1) + 8 + 0.



You must program field *25 WIRED EXPANSION/RELAY USED as required before continuing (i.e., 2 = 4229, 3 = 4204).

3. **Press *80.** Note that this is an Interactive menu programming mode. It is used to program all output relays used in the system (4204 or 4229 modules). Refer to the Programming Form worksheet in the separate **Programming Guide** for *80 Interactive mode. *If field *25 has not been programmed for a 4204 or 4229 relay, skip this field.*

Output Relay Displays

Enter Relay No. (00 = Quit) 01
--

When you press *80, this screen will appear.

Enter the Relay Number **01**, **02**, **03**, or **04** for a 4204; or **01** or **02** for a 4229 (or **00** to end these entries).

Press [*****] to continue.

The [*] key is used to accept an entry and advance to the next prompt.

The [#] key is used to revert back to the last question to check or change an entry. Press [*] to go forward again.

02 A EV ZL ZT STT 0 0 0 00

This screen displays a summary of the current relay START programming (for this example, relay 02 has been selected). Press [*****] to continue.

02	A	EV	ZL	ZT
STP	-	-	0	00

This screen displays a summary of the current relay STOP programming.

Press [★] to continue.

02 Relay Action	
No Response	0

Enter the desired relay action:

0 = No response 2 = Close and Stay Closed
1 = Close for 2 seconds 3 = Continuous Pulse on and off (1 sec ON, 1 sec OFF)

Press [★] to continue.

02 Start Event	
Not Used	0

Enter the event to START the relay:

0 = Not used; 2 = Fault; 1 = Alarm; 3 = Trouble

A zone list must be used in conjunction with an event. If a zone type/system operation is to be used instead of an event, enter **0**.

Press [★] to continue.

02 Start:	Zn List
No List	0

If a zone list will be used to START the relay action, enter the zone list number (to be programmed in field ★81): **1**, **2**, or **3**. If not, enter **0**.

Press [★] to continue.

02 Start:	Zn Typ
Not Used	00

If a zone type or system operation will be used to START the relay action, enter the appropriate two-digit code (see table that follows on the next page). If not, enter **00**.

Press [★] to continue.

CHOICES FOR ZONE TYPES

00 = Not Used	04 = Interior Follower	08 = 24-Hr Aux
01 = Entry/Exit #1	05 = Trouble Day/Alarm Night	09 = Fire
02 = Entry/Exit #2	06 = 24-Hr Silent	10 = Interior w/Delay
03 = Perimeter	07 = 24-Hr Audible	

CHOICES FOR SYSTEM OPERATION

20 = Arming-Stay	33 = Any Burglary Alarm	39 = Any Fire Alarm
21 = Arming-Away	34 = Code + # + 7 Key Entry	40 = Bypassing
22 = Disarming (Code + OFF)	35 = Code + # + 8 Key Entry	41 = Mains Failure
31 = End of Exit Time	36 = At Siren Timeout**	42 = System Batt. Low
32 = Start of Entry Time	38 = Chime	58 = Duress

**Or at disarming, whichever occurs earlier.

02 Stop:	Zn List
No List	0

If a zone list will be used to STOP, or restore, the relay action, enter the zone list (ZL) number **1**, **2**, or **3** (to be programmed in ★81 mode). If not, enter **0**.

Press [★] to continue.

02 Stop:	Zn Typ
Not Used	00

If a zone type or system operation will be used to STOP the relay action, enter the appropriate two-digit code (see the "ZT" choices listed above). If not, enter **00**.

Press [★] to continue.

02	A	EV	ZL	ZT
STT	0	0	0	00

This screen again displays a summary of the current relay START programming.

Press [★] to continue.

02	A	EV	ZL	ZT
STP	-	-	0	00

This screen again displays a summary of the current relay STOP programming.

Press [★] to continue.

The display then returns to the first screen so that the next relay number to be programmed can be entered. To end relay programming, enter **00**.

You can review previously entered data by pressing [#]**80**. After you choose the relay number, press [★] to go to the next screens.

This is a Review mode only, and data cannot be changed.

Example of Output Relay Programming

A lamp is to be turned on when any one of 3 specific zones is faulted or when any 24-hour auxiliary zone is disturbed. You want to turn off the lamp manually without affecting the arming status of the system.

In field ★80, you would choose Output Relay 01 and program the Action (A) to be "2" (Close and Stay Closed). The Event you are looking for to *start* the relay action is a fault, so program "2" in (EV). You will use Zone List 1 for the 3 specific zones, so program "1" in (ZL), and program these 3 zones in field ★81's Zone List 1. The second condition for turning on the indicator is triggering a 24-hour aux. zone (Zone Type 08), so you will program (ZT) as "08."

To *stop* relay action and turn off the indicator, you do not want to use a restore of any zone, so you will program a "0" for the "Restore of" Zone List (ZL). To choose a manual entry of [User Code] + [#] + [7] to turn it off, program (ZT) as "34" (see "Choices for System Operation" in the table above).

If no other relay is to be programmed, you would go to field ★81 and program the three specific zones in Zone List 1.

Press ★81 (Zone Lists for Output Relays). This Interactive menu mode is applicable only if you have programmed ★80 mode.

Refer to the Programming Form worksheet for ★81 Mode and for other examples in the separate **Programming Guide**.

Zone List Displays

Zone List No.	
(00 = Quit)	01

When you key ★81, this screen will appear. Enter the Zone List Number **01**, **02**, or **03** to program (or **00** to end these entries). Press the [★] key to advance.

In the following displays, Zone List 01 has been selected for programming.

01	Enter Zn Num.
(00 = Quit)	00

Enter each zone number to add to the zone list by first entering the zone number, then pressing [★] (for example, 01★, 02★, 03★).

After all zones desired are entered, press **00** to advance.

01 Del Zn List?	
0 = No 1 = Yes	0

To delete the zone list, enter **1** (Yes). All zones in the zone list will be deleted automatically and programming will return to the first screen.

To save the zone list, enter **0** (No) to advance.

01 Delete Zone?	
0 = No 1 = Yes	0

To delete a zone or zones in a zone list enter **1** (Yes) to advance.

01 Zn to Delete?

(00 = Quit) 00

Enter each zone to be deleted from the list, followed by [★]. After all zones to be deleted are entered, enter **00** to return to the first screen so that another list can be programmed, if desired.

NOTES:

- Any list may include any or all of the system's zone numbers.
- A zone list can be assigned to more than one output relay.
- *If you only want to review what has been programmed previously*, enter [#]**81**. The review can be advanced by using the [★] key.

When you are finished, enter **00[★]** to quit. No programmed values can be changed in this mode.

When you have completed programming in *80 and *81 Interactive menu modes, exit the programming mode by keying *99.

4285/4286 Phone Module

In This Section

- ◆ *Installing the 4285/4286 Phone Module*
- ◆ *Checking the Operation of the 4285/4286 Phone Module*
- ◆ *Programming the Control for Phone Access*

Installing the 4285/4286 Phone Module

General Information

The 4285/4286 Phone Module is an add-on accessory for the VISTA-10SEa that permits access to the security system via a multifrequency DTMF phone (either on-premises or by off-premises call-in).

The phone module can announce many of the same words that would normally be displayed on an alpha keypad under the same system conditions.



- Only one phone module can be used in this security system,
- When the 4285/4286 Phone Module is in use, keypads in the system must be set to the Non-addressable mode (address 31),

When properly connected, the 4285/4286 Phone Module will enable the user to do the following via a multifrequency DTMF telephone:

- Receive synthesised voice messages on the phone regarding the status of the security system.
- Arm and disarm the security system and perform most other commands using the telephone keypad, and hear voice annunciation over the phone as confirmation after a command is entered.
- Remotely determine the interior temperature of the protected premises (when the 4286 is used) and set the temperature desired via a 4500 temperature control thermostat connected to the 4286 and to the heating and air conditioning system.

The phone used for phone access must have multifrequency DTMF capability, though multifrequency DTMF service is not necessary (if premises uses decadic PULSE dialing, switchable phones must be set for multifrequency DTMF usage temporarily before attempting phone access).

A **Phone Access User's Guide** is provided with the phone module for the user of the system.

Mounting the 4285/4286 Phone Module

The phone module may be mounted in the control cabinet if space is available or, if this is not possible, on the side of the cabinet or adjacent to it.

When you are mounting the module outside the cabinet, use the screw holes at its rear. This will permit it to be mounted horizontally or vertically (double-sided adhesive tape may be used, if preferred). You can bring wires out from the side or back (a round breakout is also available on the back).

Affix the phone module's connections label (supplied separately) to the inside of the phone module's cover if the cover is used. If you have installed the module within the cabinet, affix the label to the inside of the control cabinet's door.

Phone Module Wiring

The 4285/4286 Phone Module is wired between the control panel and the premises telephone. It listens for multifrequency DTMF tones on the phone line and reports them to the control panel. During on-premises phone access, it powers the premises phones; during off-premises phone access, it seizes the line from the premises phones and any answering machines.

NOTE: The phone lines must be in service for the phone module to function, even when the system is being accessed from an on-premises phone.

1. Make 12V (+) and (–) and Data-in and Data-out connections from the phone module to the control, using the connector cable supplied with the phone module (see *Figure 8-1*).

Phone Module/Control Wiring Table

Color Lead	Terminal On Control *
GREEN	DATA IN (terminal 6)
BLACK	AUX – (terminal 4)
RED	AUX + (terminal 5)
YELLOW	DATA OUT (terminal 7)

* These are the same connections as those used for remote keypads.

2. Insert the keyed connector at the other end of the connector cable into the mating header on the phone module (see diagram on next page for location of the header).

Terminals 1 through 4 on the phone module are factory pre-connected to the LIU as shown in the wiring diagram that follows in *Figure 8-1* on the next page. Terminals 5, 6, and 7 are not used.



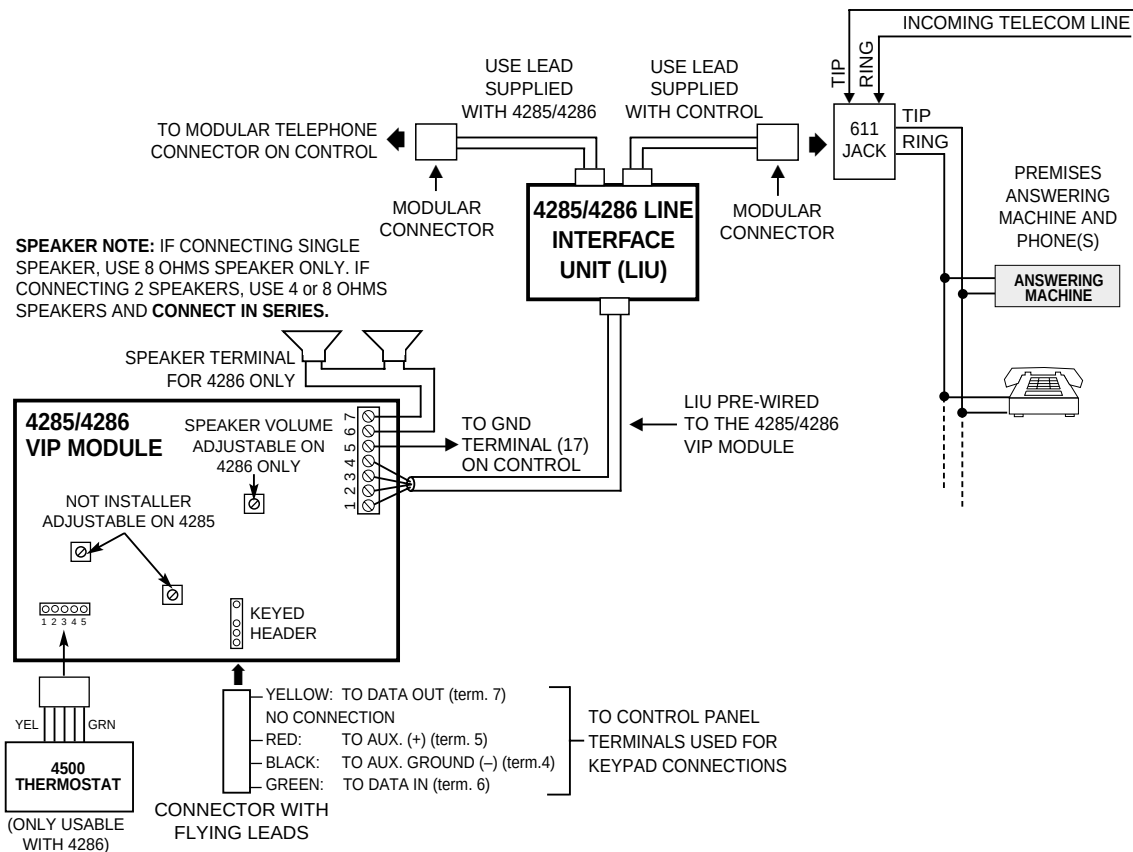
Use a 611 jack with a direct-connect cord and make all connections exactly as shown.

Caller ID Units

If the telephone system on the premises includes a stand-alone Caller ID unit, connect the Caller ID unit directly between the 611 jack and the premises telephones.

4285/4286 WIRING NOTES:

1. Wire the 4285/4286 Phone Module exactly as shown, using direct-connect cords and jacks.
2. If you hear an error signal (fast busy signal) when trying to access the system via the phone, check for correct line seizure wiring, as described in note 3.
3. Connection to the incoming telecom line via a 611 jack and direct-connect cord, as shown in this diagram, is essential, even if the system is not connected to a central station for alarm monitoring.
The 4285/4286 will not function if this is not done.
You must connect the premises phone lines to the 611 jack and not to the control jack. Otherwise, you will hear an error signal (fast busy signal) when you are trying to access the system from an on-premises phone.
4. If the telephone system on the premises includes a stand-alone Caller ID unit, connect the ID unit **directly** to the premises telephone jacks.

**Figure 8-1. 4285/4286 Phone Module Wiring Connections**

Programming the Control for Phone Access

1. With at least one keypad (set to the Non-addressable mode, address 31) connected to the keypad terminals on the control, power up the system temporarily. If you previously connected the mains plugpack to the control panel, you need only plug it in to the mains (to 230VAC outlet) to power up the system.

NOTE: The 4285/4286 has a permanent device address of 4.

2. Enter the programming mode by keying the following on the keypad: **Installer code (4 1 1 1) + 8 + 0.**

3. **Press *26 VOICE (PHONE) MODULE ACCESS CODE.**

Enter the 2-digit phone access code as follows: For the first digit, enter 1–9; for the second digit, enter [#] +11 for "★," or # +12 for "#."

Example: If desired access code is 7★, 7 is the first entry, and [#] + 11 (for ★) is the second entry.

Enter 00 if not using a phone module (this is the default).

NOTE: A "0" in either digit will disable a phone module.

4. **Press *95 RING DETECTION COUNT FOR DOWNLOADING.**

Refer to the chart below and program this field accordingly.

Ring Detection Count Chart

<i>If you are using (Yes) or not using (No)</i>	<i>...and if you are using (Yes) or not using (No)</i>	<i>...and if you are (Yes) or are not (No)</i>	<i>...then program Field *95 this way:</i>
Phone Module	Answering Machine	Downloading	
Yes	No	No	Set for value other than "0" (1-14). This will enable the control panel to answer the phone call. Otherwise, it will not be possible to access the phone module.
Yes	Yes	No	Set for a value higher than the number of rings for which the answering machine is set. <i>Example:</i> If the machine is set for 4 rings, use a value of 5 or higher. This is recommended so that the phone module can still be accessed if the answering machine is turned off and does not answer the phone call.
Yes	No	Yes	Set for a value other than "0" (1-14).
Yes	Yes	Yes	Enter "15" to bypass the answering machine. See Important Note below.



If you enter **15** in field *95 to bypass an answering machine, and a 4285/4286 Phone Module is included in the installation, you should note the following:

When calling in from an off-premises phone (to receive a status report or execute a command), the user should make the initial call, allow 1 to 3 rings only, hang up, and then call in again. The phone module will now seize the line, and the user will hear 2 long tones, followed by the usual voice prompt for the 2-digit phone access code. If this procedure is not followed, phone module operation will not be possible.

5. You should also program Zone Descriptors, regardless of the type of keypads in use. If this is not done, the phone module will not annunciate a description of the zone(s) in

alarm, trouble, etc. (the phone module will annunciate zone numbers only).

You can enter zone descriptors now, using Interactive mode ***82**, or later. See *Section 11: ALPHA DESCRIPTOR PROGRAMMING* for a detailed procedure.

6. Exit the Programming mode by entering ***99**. Perform a preliminary check of the 4285 Phone Module, as indicated next.

Checking the Operation of the 4285/4286 Phone Module

To Check Phone Module Operation from an On-Premises Phone

1. Pick up the phone and enter the programmed 2-digit Phone code (entered in field ***26**, VOICE MODULE ACCESS CODE). Annunciation of a system status report should automatically start. See the User's Guide accompanying the phone module for detailed information regarding the nature of the status report, if necessary.
2. During any pause in the status report, or immediately following it, key the following via the keypad on the phone:

Installer code (4111) +1 (OFF)

3. You should hear a beep on the phone and from a wired keypad, and the words **"DISARMED...READY TO ARM"** or **"DISARMED...NOT READY TO ARM"*** indicating that you entered the command successfully.
* "DISARMED...NOT READY TO ARM" would indicate an open zone.
4. Hang up the phone.

To Check Phone Module Operation from an Off-Premises Phone

1. Have someone dial the premises phone number, using a multifrequency DTMF phone.
 - If the phone system does not include an answering machine, the caller will hear 2 long tones in the phone, followed by the voice prompt, **"HELLO, ENTER PHONE CODE NOW."** The caller should then enter the programmed 2-digit Phone code (entered in field ***26** VOICE MODULE ACCESS CODE).
 - If the premises phone system includes an answering machine, the caller should enter the 2-digit Phone code **during a pause** at the beginning of, or during, the outgoing answering machine message.

NOTE: If you entered **15** in field ***95** to bypass an answering machine, and a 4285/4286 Phone Module is included in the installation, off-premises phone operation will be affected. Read the "Important Note" in the programming information for field ***95** on the previous page.

2. When the caller enters the 2-digit phone code, he will hear a voice prompt asking for entry of the 4-digit system code (**"ENTER SYSTEM CODE NOW"**).
3. The caller should then enter the Installer code (4111). As a safety feature, there is a 3-try limit in which to enter each code (Phone code and System code), after which the call-in will be aborted. Also, if the caller presses no keys for 20 seconds, the call-in will be aborted.
4. A system status report will begin annunciation if both codes were entered correctly.
5. During any pause in the status report, or immediately following it, the caller should key the following via the keypad on the phone:

Installer Code (4111) + 1 (OFF)

6. A wired keypad on the premises should now beep. Also, the caller should hear a beep on his phone, and the words **"DISARMED...READY TO ARM"** or **"DISARMED...NOT READY TO ARM"***, indicating that the command was entered successfully.
* "DISARMED...NOT READY TO ARM" would indicate an open zone
7. At this point, the caller can hang up the phone.
8. Verify with the caller that there was successful access to the system and that the appropriate annunciations were heard on the phone.

External Sounders

In This Section

- ◆ About External Sounders
 - ◆ Sounder Connections
 - ◆ Siren Supervision
 - ◆ Programming for External Sounders
 - ◆ Testing the Sounder
-

About External Sounders

The total current drawn from the alarm output terminals cannot exceed 2 amps. The backup battery must be installed because this current is supplied by that battery.



Going beyond the limits indicated (2 amps) will cause the electronic protection to trip and turn off the output voltage.

This control provides temporal pulse sounding of fire alarm sounders.

Temporal pulse sounding for a fire alarm consists of the following:
3 pulses – pause – 3 pulses – pause – 3 pulses. . . repeated.

Sounder Connections

The control provides a 12VDC output, which can power external alarm sounders (bells or sirens). This output will activate a sounder when an alarm occurs.

Make connections to alarm output terminals **3 (+)** and **4 (–)**. See *Figure 9-1*.

Siren Supervision

A hardware-enabled option for Siren Supervision has been added to this system. If Siren Supervision is enabled and the “Alarm Output” loop connected to an external sounder is opened or shorted, the message “**Bell Failure**” (on alpha keypads) or “**CHECK 70**” (on fixed-word keypads) will be displayed, accompanied by a trouble sound. The following report will also be sent to the central station (if trouble reporting is enabled): “Contact ID report for Bell Supervision is event code 321.”

To enable the Siren Supervision option, take the following steps:

1. Cut the red jumper on the control board (See *Figure 9-1*).
2. Connect a 1000-ohm resistor across the sounder terminals, **not at the Alarm Output terminals!**

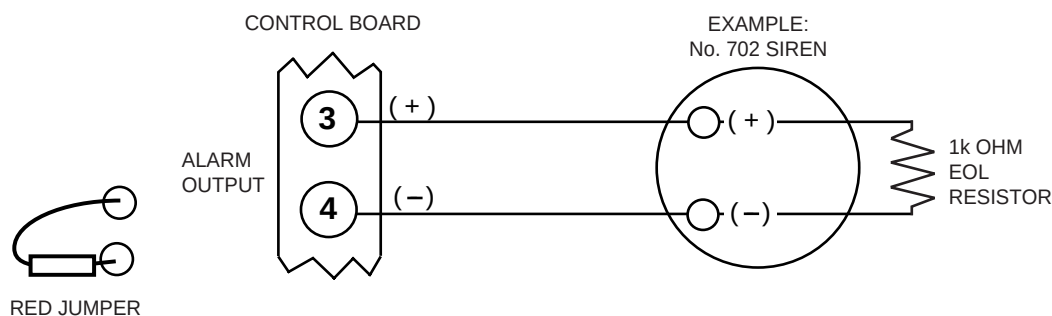


Figure 9-1. Typical Sounder Wiring

Programming for External Sounders

1. With at least one 2-line alpha keypad (6139) connected to the keypad terminals on the control, power up the system temporarily. If you previously connected the AC transformer to the control panel, you need only plug in the AC plugpack (to a 230VAC outlet) to power up the system.
2. Enter the Programming mode by keying the following on the alpha keypad: **Installer code (4 1 1 1) + 8 + 0.**
3. **Press *28 Single Alarm Sounding per Zone/Armed Period.**
Enter **1** for yes, **0** for no (default).
4. **Press *29 Fire Sounder Timeout.**
Enter **1** for no timeout, **0** for timeout (default).
5. **Press *30 Siren Timeout.**
Enter **0** for no timeout, **1** for 4 min, **2** for 8 min (default), **3** for 12 min, **4** for 16 min.
6. **Press *51 Confirmation of Arming Ding.**
Enter **0** for no (default); **1** for yes; **2** for yes, but with RF arming only.
7. Exit the Programming mode by entering ***99.**

Testing the Sounder

After installation of the sounder is completed, test the security system carefully, as follows:

1. Connect the battery wires from the control board to the battery, observing correct polarity.
2. Enter the **Installer code (4 1 1 1)** and press the **TEST** key on the wired keypad.
The external sounder should sound for 1 second if the sounder is working and proper connections have been made. Note that if the backup battery is discharged, the sounder will not turn on.
3. To turn off the Test mode, enter the **Installer code (4 1 1 1)** and press the **OFF** key.

Final Power-up

In This Section

- ◆ About Final Power-up
- ◆ Earth Ground Connections
- ◆ Mains Powering
- ◆ Connecting the Backup Battery

About Final Power-up

In previous sections, you made temporary power connections for the purpose of programming and testing. This section provides information about final power-up procedures and battery size calculations.

Earth Ground Connections

The designated earth ground terminal (21) must be terminated in a good earth ground for the lightning transient protective devices in this product to be effective. See *Section 2: INSTALLING THE CONTROL*.

Mains Powering

1. Plug the mains plugpack into a 24-hour, uninterrupted 230VAC outlet.
2. Following power-up, “AC,” “dI” (disabled), or “BUSY–STANDBY” (on alpha keypads); or “NOT READY” (on fixed-word keypads) will be displayed. Also the green “READY” LED on the keypad(s) should light.

After approximately 1 minute, the initial displays will revert to “DISARMED...READY TO ARM” on alpha keypads, or “READY” on fixed-word keypads (if there are no faulted zones). This 1-minute delay allows PIRs, etc. to stabilise.

To bypass this delay, press: [#] + 0.

NOTE: If the “READY” displays described above do not appear, make sure that there are no faulted zones (doors or windows open, PIRs activated, etc). If necessary, refer to “Trouble Conditions” in *Section 15: SYSTEM OPERATION*, and also to *Section 16: TROUBLESHOOTING GUIDE*.

Connecting the Backup Battery

In the event of a mains power loss, the control panel is supported by a backup, rechargeable gel cell battery. The minimum battery size recommended is a 12V, 6.5AH battery. See “Calculating the Battery Size Needed” below. The battery is installed in the control cabinet.

The control automatically checks the standby battery connection every 3 minutes. In addition, entry into the Test mode will cause a battery test to be initiated. If there is no battery or a low battery, the keypad displays a “LOW BATTERY” message, and, if so programmed, the system will report the condition to the central station.

Calculating the Battery Size Needed

Determine the total device current drain after filling in the “Auxiliary Device Current Drain Worksheet” on the next page. To this figure add the 100mA that is used by the control panel itself. Then, to determine the battery size needed, use the following formula:

Total Current Drain* x Number of hours standby wanted = Battery Ampere/Hours.

* Convert mA figure to decimal Amps (see example).

Example:

If total auxiliary device current drain is 450mA, add 100mA for the control panel, for a total of 550mA (0.55 amps). If you want 24-hour standby, the calculation will be:

$$0.55\text{mA} \times 24 \text{ hours} = 13.2 \text{ Ampere/Hour battery needed.}$$

In this example, two 7 Amp/Hr batteries (connected in parallel) must be used.

Making the Battery Connections

1. Use the battery standby formula (shown above) to select the appropriate battery for the installation. Remember, when calculating the battery size needed, you must add the 100mA used by the control itself to the total auxiliary current drain in the worksheet on the next page.



Do not connect to the battery until all devices have been wired to the control.

2. Attach the red and black wires of the battery connector cable to the battery, as follows:
 - a. Red to the positive (+) terminal on the battery.
 - b. Black to the negative (-) terminal on the battery.

AUXILIARY DEVICE CURRENT DRAIN WORKSHEET

DEVICE USED	CURRENT DRAIN	NUMBER OF DEVICES	TOTAL CURRENT (device mA x no. of units)
6128 Keypad	30mA		
6137 Keypad	85mA		
6139 Keypad	100mA		
5881 Type RF Receiver	35mA		
4204 Relay Module	15/180mA [‡]		
4219 Zone Expander Module	35mA		
4229 Zone Expander/Relay Module	35/100mA [‡]		
4285/4286 Phone Module	160mA		
6128RF Keypad/Transceiver	65mA/120mA [‡]		
*			
*			
*			
*			
*			
*			
*			
*			
*			
TOTAL =			
(Current available from Aux. terminals = 500mA max.)**			

[‡] Figures are for relays OFF/relays ON.

** If you are using wired devices such as PIRs, refer to the specifications for that particular unit's current drain, and include on worksheet.

Alpha Descriptor Programming

In This Section

- ◆ About Alpha Descriptor Programming
- ◆ Adding Custom Words
- ◆ Assigning Zone Descriptors

About Alpha Descriptor Programming

This section provides instructions for programming alpha descriptors. This is recommended for systems using alpha keypads, and necessary if the system is using a 4285/4286 Phone Module. Alpha descriptors cannot be displayed on fixed-word keypads.

If the system is using a 4285/4286 Phone Module, select **only** from those words in the "Alpha Vocabulary List" shown in **boldface type** (on a following page). *The phone module will not provide annunciation of other words.*



If a 4285/4286 Phone Module is added to an existing V10SEa system, *reprogram the alpha descriptors presently in the system*, selecting from those words shown in **boldface type** in the Alpha Vocabulary List. The phone module will not provide annunciation of any other words.

Assigning Zone Descriptors

The alpha keypad used with the VISTA-10SEa can have a user-friendly English-language descriptor/location of all protection zones, keypad Panics, and RF receiver/relay or zone expander supervision faults programmed into the system. Each descriptor can be comprised of a combination of words (up to 3) selected from a vocabulary of words stored in memory (the list is on a following page). In addition, you can add up to 5 installer-defined words to those already in memory. Thus, when an alarm or trouble occurs in a zone, an appropriate descriptor for that zone's location will be displayed at the keypad.

NOTE: You can enter alpha descriptors locally at the alpha keypad or remotely using downloading software. The alpha keypad procedure is described below.

Entering Zone Descriptors (in Program Menu Mode *82)

You can enter the descriptor when the zone is being defined in field *56.

Alternatively, you can enter zone descriptors in field *82.

The procedure simply requires that you enter the 3-digit reference number for the desired word(s). The 3-digit number for each word is provided in the "Alpha Vocabulary List" on a following page.

Programming the Descriptors

1. With the system powered up, enter the Programming mode by keying:

Installer code (4 1 1 1) + 8 + 0.

The following display will appear:

Installer Code 20
--

Program Alpha ?
0 = No, 1 = Yes 00

Custom Words ?
0 = No, 1 = Yes 00

Default Descriptor ↵

*ZN 01 ZONE 01

Flashing Cursor (system
is ready for entry of word).

*ZN 01 ☐

Flashing Cursor ↵

*ZN 01 ☐ B ACK

*ZN 01 BACK



Flashing Cursor if "6" is
pressed (system is
ready for next word).

*ZN 01 BACK

☐ OOR

Flashing Cursor

2. **Press *82.**

The "**Program Alpha?**" prompt will appear.

3. **Press 1 (Yes).**

The "**Custom Words?**" prompt will appear.

4. **Press 0 (No).***

If you did not previously enter a descriptor for zone 1, the default descriptor for zone 1 will be displayed.

* The procedure for adding custom words to the built-in vocabulary is in "Adding Custom Words." later in this section.

Note that no entries can be made. Entries can be made only when the display contains a flashing cursor, which signifies the Entry mode.

5. To delete or change the default descriptor for zone 1, **press [*] plus the same zone number (01)**. This will clear that descriptor and gain access to the Entry mode with flashing cursor, allowing changes to be made.

NOTE: If you do not wish to change the existing descriptor for zone 1, enter [*] plus the next zone number for which you wish to enter (or check) a descriptor. A summary display for that zone will appear. You must then press [*] plus the same zone number again to gain access to the Entry mode (flashing cursor) for that zone.

6. **Press [#] plus the 3-digit number** for the first word, using the "Alpha Vocabulary List" to locate the desired word and its 3-digit number.

Example: The descriptor that we wish to enter for zone 1 is BACK DOOR. From the list, BACK = 013. Therefore, you would enter **[#] 0 1 3**.

NOTE: If you accidentally enter the wrong word, simply press [#] plus the correct 3-digit number for the word you want.

7. **Press 6 to accept the selected word and continue.**

NOTE: If this is the only word you are using for the descriptor, press **8** instead of **6** to save that word in memory, and then go to step 11.

8. **Enter the 3-digit number for the next word.** In our example, the word is DOOR, whose number is "057." Enter **[#] 0 5 7**. The display on the left will appear.

*ZN 01 BACK
DOOR ☐

Flashing Cursor if "6" is
pressed (system ready for
next word).

*ZN 01 BACK
DOOR

Program Alpha ?
0 = No, 1 = Yes

Alpha Pgm 82

9. **Press 6 to accept the selected word.**

NOTE: If these are the only words you are using for the descriptor, press **8** instead of **6** to save them in memory.

10. The two words in our example have now been entered.

Note, however, that up to three words may be entered (provided the number of characters will fit on the screen). **Press 8 to save all words in memory.**

The flashing cursor will disappear, indicating that the word(s) are stored in memory for that zone, as shown in the display at the left.

11. To enter a descriptor for the next zone, press [*] plus the desired zone number (e.g., *02). The summary display that followed step 4 will appear.

Now repeat steps 6 through 10 for the descriptor for the next zone.

12. To exit the Alpha Descriptor mode, press *00 at the summary display.

The **"Program Alpha?"** prompt will be displayed.

13. Press 0.

The display at left will appear.

14. Press *99 to exit the Programming mode.

Adding Custom Words (will not be annunciated by 4285/4286 Phone Module)

You can add up to five installer-defined words to the built-in alpha vocabulary. Each of the five "words" can actually consist of a "word string" of one or more words, but no more than **ten characters** can be used for each word or word string.

1. Perform steps 1, 2, and 3 of "Programming the Descriptors."

Select Custom Word mode (enter **1**) when the prompt **"Custom Words?"** is displayed.

2. Enter the number (1–5) of the custom word or word string to be created. For example, if you are creating the *first* custom word or word-string, enter **1**; for the *second*, enter **2**; etc. A cursor will now appear at the beginning of the second line.

You can now enter the custom word's characters. Refer to the "Character (ASCII) Chart" (on a following page) of letters, numbers, and symbols for the desired character and its 2-digit number.

When adding custom words in steps 3–6, the keypad's keys perform the following functions:

[4] Moves cursor one space to left.

[6] Selects desired letter; moves cursor one space to right.

[8] Saves the new word in the system's memory.

3. Press [#], followed by the 2-digit entry for the first letter you would like to display (e.g., **65** for "A").

4. When you have entered the 2-digit number, press **6** to select it. The cursor will then move

- to the right, in position for the next character.
5. Repeat steps 3 and 4 above to create the desired word(s). Note that the [4] key can be used to move the cursor to the left, if necessary. Remember, no word or word-string can exceed 10 characters.
 6. Press **8** to save the custom word(s) and return to the "**Custom Word?**" prompt.
 7. Repeat steps 2–5 for other custom words to be entered. To change a custom word, just overwrite it.
 8. When you are finished entering words, press **0** (No) at the "**Custom Word?**" prompt to return to the Descriptor entry. The custom word(s) will be automatically added to the built-in vocabulary.
 9. Exit the Programming mode by keying ***99**.

When you are entering zone descriptors as described in step 6 of "Programming the Descriptors," the custom word numbers are 250 to 254 for words 1 to 5, respectively.
--

ALPHA VOCABULARY LIST

(For Entering Zone Descriptors)

NOTE: Some rarely used words appearing in previously published lists have been deleted from this list. Use only this list for selecting zone descriptors.

000 (Word Space)	• 057 DOOR	L	R	V
A	• 059 DOWN	• 106 LAUNDRY	155 RADIO	209 VALVE
• 001 AIR	• 060 DOWNSTAIRS	• 107 LEFT	• 156 REAR	210 VAULT
• 002 ALARM	061 DRAWER	108 LEVEL	157 RECREATION	212 VOLTAGE
004 ALLEY	• 062 DRIVEWAY	• 109 LIBRARY	159 REFRIGERATION	W
005 AMBUSH	• 064 DUCT	• 110 LIGHT	160 RF	213 WALL
• 006 AREA	E	• 111 LINE	• 161 RIGHT	214 WAREHOUSE
• 007 APARTMENT	• 065 EAST	• 113 LIVING	• 162 ROOM	• 216 WEST
• 009 ATTIC	066 ELECTRIC	• 114 LOADING	163 ROOF	• 217 WINDOW
010 AUDIO	067 EMERGENCY	115 LOCK	S	• 219 WING
B	068 ENTRY	116 LOOP	164 SAFE	220 WIRELESS
• 012 BABY	• 069 EQUIPMENT	117 LOW	165 SCREEN	X
• 013 BACK	• 071 EXIT	• 118 LOWER	166 SENSOR	222 XMITTER
• 014 BAR	072 EXTERIOR	M	• 167 SERVICE	Y
• 016 BASEMENT	F	• 119 MACHINE	• 168 SHED	223 YARD
• 017 BATHROOM	• 073 FACTORY	121 MAIDS	169 SHOCK	Z
• 018 BED	075 FAMILY	122 MAIN	• 170 SHOP	224 ZONE (No.)
• 019 BEDROOM	• 076 FATHERS	• 123 MASTER	171 SHORT	• 225 ZONE
020 BELL	• 077 FENCE	• 125 MEDICAL	• 173 SIDE	• 226 0
• 021 BLOWER	• 079 FIRE	126 MEDICINE	174 SKYLIGHT	• 227 1
• 022 BOILER	• 080 FLOOR	128 MONEY	175 SLIDING	• 228 1ST
023 BOTTOM	081 FLOW	129 MONITOR	• 176 SMOKE	• 229 2
025 BREAK	082 FOIL	• 130 MOTHERS	• 178 SONS	• 230 2ND
• 026 BUILDING	• 083 FOYER	• 131 MOTION	• 179 SOUTH	• 231 3
C	084 FREEZER	132 MOTOR	180 SPRINKLER	• 232 3RD
028 CABINET	• 085 FRONT	N	• 182 STATION	• 233 4
• 029 CALL	G	• 134 NORTH	184 STORE	• 234 4TH
030 CAMERA	• 089 GARAGE	135 NURSERY	• 185 STORAGE	• 235 5
031 CAR	• 090 GAS	O	186 STORY	• 236 5TH
033 CASH	091 GATE	• 136 OFFICE	190 SUPERVISED	• 237 6
034 CCTV	• 092 GLASS	• 138 OPEN	191 SUPERVISION	• 238 6TH
035 CEILING	093 GUEST	139 OPENING	192 SWIMMING	• 239 7
036 CELLAR	094 GUN	• 140 OUTSIDE	193 SWITCH	• 240 7TH
• 037 CENTRAL	H	142 OVERHEAD	T	• 241 8
038 CIRCUIT	• 095 HALL	P	194 TAMPER	• 242 8TH
• 040 CLOSED	• 096 HEAT	143 PAINTING	196 TELECOM	• 243 9
• 046 COMPUTER	098 HOLDUP	• 144 PANIC	197 TELEPHONE	• 244 9TH
047 CONTACT	099 HOUSE	145 PASSIVE	• 199 TEMPERATURE	
D	100 INFRARED	• 146 PATIO	200 THERMOSTAT	
• 048 DAUGHTERS	• 101 INSIDE	147 PERIMETER	• 201 TOOL	
049 DELAYED	102 INTERIOR	• 148 PHONE	202 TRANSMITTER	250 Custom Word #1
• 050 DEN	103 INTRUSION	150 POINT	U	251 Custom Word #2
051 DESK	J	151 POLICE	• 205 UP	
• 052 DETECTOR	104 JEWELRY	152 POOL	• 206 UPPER	252 Custom Word #3
• 053 DINING	K	• 153 POWER	• 207 UPSTAIRS	
054 DISCRIMINATOR	• 105 KITCHEN		• 208 UTILITY	253 Custom Word #4
055 DISPLAY				254 Custom Word #5

NOTE: Bulleted (•) words in **boldface type** are those that are also available for use by the 4285/4286 Phone Module. If you are using a phone module, and you select words other than these for alpha descriptors, the module will not provide annunciation of those words.

CHARACTER (ASCII) CHART

(For Adding Custom Words)

32 (space)	42 *	52 4	62>	72 H	82R
33 !	43 +	53 5	63 ?	73 I	83S
34 “	44 ,	54 6	64@	74 J	84T
35 #	45 –	55 7	65A	75 K	85U
36 \$	46 .	56 8	66B	76 L	86V
37 %	47 /	57 9	67C	77 M	87W
38 &	48 0	58 :	68D	78 N	88X
39 ‘	49 1	59 ;	69E	79 O	89Y
40 (	50 2	60 <	70F	80 P	90Z
41)	51 3	61 =	71G	81 Q	

Sequential Mode

(for 5800 Series Wireless Transmitters)

In This Section

- ◆ Two Methods of Enrolling Transmitters
- ◆ Enrolling Transmitters Sequentially
- ◆ Using the Program Tool

(Use this mode only after all other zone information has been programmed, including transmitter loop numbers.)

Two Methods of Enrolling Transmitters

There are two ways to enroll transmitters. You can enroll each transmitter into the system as you are entering the zone information in field *56 (the procedure is detailed in *Section 6: WIRELESS (RF) ZONE EXPANSION*); or you can enroll all the transmitters in *83 Menu mode *after all other zone information has been entered in field *56*. The enrolling method in *83 is called "sequential enrolling" and is described in this section.

Using the Program Tool

As an option, the new sequential mode allows you to use a **5804 button-type transmitter as a "program tool."** The advantage of using a program tool is that it enables remote enrollment. You can move to the physical location of the transmitter to be enrolled, press the upper left-hand button of the program tool, and then trip the intended transmitter (see step 10 for operation). The transmitter that you use as the program tool can also be used as a transmitter in the system. If you plan to use an existing transmitter, you must first enroll it into the system as its associated zones. You may then program it as the tool.

An alpha keypad is required for the following procedures.

Enrolling Transmitters Sequentially

To enroll transmitters **sequentially**, *after* all other zone information has been programmed, do the following:

1. Enter Programming mode [**Installer Code**] + **8 + 0** on an alpha keypad. Enter the Serial Number Sequential mode by pressing ***83**. The following prompt will be displayed.

Program Tool? 0 = No, 1 = Yes 0

00 Input S/N: L Ax x x-x x x x

2. If you are using a program tool, enter **1**. If not, enter **0**. If a tool has already been programmed, this prompt will not appear. If you are not using a tool or one has already been programmed, skip to step 4.
3. If you entered **1**, the system will prompt for the transmitter's serial number. Enter the program tool's serial number using one of the following methods:
 - a. Enter the 7-digit serial number printed on the transmitter.
 - or**
 - b. Press any button on the transmitter. The keypad will beep twice and display the tool's serial number.

00 Input S/N: L
A123-4567 3

In this example, the serial number is A123-4567. Once enrolled, the upper left-hand button of the program tool can be pressed to ready the system for enrolling a transmitter into the system.

The serial number for the program tool will remain in the system only until the Programming mode is exited. (Entering *97 will not delete the tool.)

Press [*] to continue.

Pressing [#] on the keypad will cause the system to back up to the "**Program Tool?**" prompt.

Enter Zn Num.
(00 = Quit) 10

Zone Number Entered

4. Enter the first zone number to be enrolled (e.g., zone 10).

Press [*] to continue.

The system will, starting with this zone number, search for the first transmitter that has **all** of the following attributes preprogrammed in Zone Programming:

a. An input type of RF, UR, or BR programmed

b. A loop number programmed

c. No serial number programmed



If the zone number entered does **not** have all of the above attributes, the system will search its database for the first zone that does, and will display it on the next screen. This means that the zone number you entered has already been enrolled.

10 Input S/N: L
Axxx xxxx

5. The keypad displays this prompt when the system has found the next zone that needs to be enrolled.

The system will respond to the first serial number transmitted. A serial number may be enrolled by one of two methods:

- a. Enter the 7-digit serial number printed on the transmitter

or

- b. Activate the transmitter by faulting or restoring the input you wish to use for that zone (e.g., press a button, open or close a door, etc.).



If you do **not** wish to enroll the zone displayed, press [#] on the keypad or the upper right-hand button on the program tool (the tool will produce a long beep to verify). The following prompt will appear:

10 Learn S/N?
0 = No, 1 = Yes 0

To enroll now, enter **1** (Yes). If you enter **0** (No), the following prompt will appear if a program tool has already been programmed:

Enter Zn Num.
00 = Quit 12

Enter the next zone number to be enrolled (e.g., zone 12). The system will search for that zone and will display the prompt shown in the beginning of step 5. If you wish to exit the Enroll mode completely, enter **00** and press [*].

Zone Number Entered —

10 Input S/N:	L
A 022-4064	3
Serial #	Loop #

The system will enroll the serial number of the first transmitter heard, add the loop number entered to this serial number, display the serial and loop numbers, and cause the keypad to beep twice.



If the serial and loop number combination is already present in the system, you will hear a single long beep from the keypad. If this happens, the system will not display the serial number, but will wait for a transmission from another transmitter or transmitter loop input.

6. The system will then enter an optional confirmation mode so that the operation of the actual programmed input can be confirmed. Activate the loop input or button that corresponds to this zone. **We recommend that you confirm the programming of every transmitter before proceeding to the next zone.**

10 Confirmed
A022-4064
3

When the system sees activity on the appropriate input, it will beep three times and display the confirmation message. Press [*] or the upper left-hand button of the program tool when you are ready to enroll the next transmitter.



At any time during this step, you may press [*] on the keypad or the upper left-hand button of the program tool if you are satisfied with the serial and loop number combination that has been enrolled, regardless of whether or not the enrolled input has been "confirmed." This will ready the system to enroll the next transmitter.

If the incorrect transmitter has been enrolled, press [#] on the keypad or the upper right-hand button of the program tool to delete the serial number and return to the "LEARN S/N" prompt. The keypad will emit a single long beep to verify pressing of the upper right-hand button. Then, press **1** (Yes) or press the upper left-hand button of the program tool (a single short beep will verify the system is ready for enrolling) and re-activate the proper transmitter or transmitter loop input.

7. The system will search for the next zone that does not have a serial number associated with it. If one is found, the keypad will display the prompt in step 5, along with the appropriate zone number. Follow steps 5 and 6 for the remaining wireless zones.
8. After all wireless zones have been displayed, whether enrolled or not, the "**Enter Zn Num.**" prompt will appear. Enter **00** to exit the Sequential mode and return to Data Field Programming mode.



When you have finished programming all zones, test each using the system's Test mode. Do not use the Transmitter ID Sniffer mode for this, as it will only check for transmission of one zone on a particular transmitter, and NOT the zones assigned to each additional loop.

System Communication

In This Section

◆ About System Communication

◆ Communication Programming

◆ Report Code Formats

About System Communication

This section provides an explanation of formats this system accommodates for reporting alarms and other system conditions to the central station. A successful transmission depends upon both the method of communication between the control panel and the central station receiver; and the actual way the information is sent and displayed at the central station.

Report Code Formats

When the panel calls the central station receiver, it waits to hear a “handshake” frequency from the receiver to confirm that the receiver is on-line and ready to receive its message. Once the panel hears the handshake it is programmed to listen for, it sends its message. The panel then waits for a “kissoff” frequency from the receiver acknowledging that the message was received and understood.

If the handshake frequency is not given or is not understood by the panel, the panel will not send its message. Once the handshake frequency is received and understood by the panel, the panel will send its message. If there is an error in the transmission (the receiver does not receive a “valid” message), the central station receiver will not give the kissoff frequency.

The panel will make a total of three attempts to the primary telephone number and three attempts to the secondary telephone number (if programmed) to get a valid message through. If the panel is not successful after its numerous attempts, the keypad will display “COMM. FAILURE” (on an alpha keypad) or “FC” (on a fixed-word keypad).

The following chart defines the handshake/kissoff frequencies that the panel supports and the different formats that can be sent for each.

Report Code Table

FORMAT	HANDSHAKE	TRANSMITS DATA	KISSOFF	TRANSMIT TIME
ADEMCO Local Audio	None	DTMF (3 cps)	None	Under 10 secs. per report (multiple iterations are made)
ADEMCO Contact ID	1400-2300Hz	DTMF (10 cps)	1400Hz	Under 3 secs.

ADEMCO Contact ID Reporting Format

ADEMCO Contact ID comprises a 4-digit subscriber number, 1-digit event qualifier ("new" or "restore"), 3-digit Event code, and 3-digit zone number, user number, or system status number.

ADEMCO Contact ID Reporting takes the following format:

CCCC Q EEE GG ZZZ

where: CCCC = Customer (subscriber) ID

Q = Event qualifier, where:

E = new event and R = restore

EEE = Event code (3 hexadecimal digits)

NOTE: For a complete list of event codes, refer to the central office receiver manual.

GG = Always 00.

ZZZ = Zone/Contact ID number reporting the Alarm, or user number for Open/Close reports. System status messages (AC Loss, Walk Test, etc.) contain zeroes in the ZZZ location.

Table of Contact ID Event Codes

Code	Definition
110	Fire Alarm
121	Duress
122	Alarm, 24-hour Silent
123	Alarm, 24-hour Audible Panic
131	Alarm, Perimeter, Burg.
132	Alarm, Interior, Burg.
134	Alarm, Entry/Exit, Burg.
135	Alarm, Day/Night, Burg.
150	Alarm, 24-Hour Auxiliary
301	AC (Mains) Power Loss
302	Low System Battery/Battery Test Fail
321	Siren Supervision Failure
333	Expansion Module Fail
344	Trouble, RF Receiver Jam
353	Trouble Alternative Communications Media

Code	Definition
373	Fire Loop Trouble
380	Trouble (Global)
383	RF Sensor Tamper
384	RF Sensor Low Battery
401	O/C by User
406	Cancel by User
407	Remote Arm/Disarm (Download)
408	Quick Arm AWAY/MAX
441	Armed STAY/INSTANT, Quick-Arm STAY/INSTANT
570	Bypass
601	Test, Manually Triggered
602	Periodic Test
606	AAV to follow
616	Service Request

Communication Programming

Introduction

This section provides instructions for programming those fields that affect communications between the control and the central station.

Programming Procedure

1. With at least one alpha keypad (6139) connected to the system, power up the system. If necessary, refer to *Section 10: FINAL POWER-UP* for the power-up procedure. If you previously connected the AC transformer to the control panel, you need only plug in the plugpack (to a 230VAC outlet) to power up the system.
2. Enter the Programming mode by keying the following on the alpha keypad: **Installer code (4 1 1 1) + 8 + 0.**

Fields *40, *41, *42, *44
Enter up to the number of digits shown. Do not fill unused spaces.
Enter 0–9,
+ 11 for “*”
+ 12 for “#”
+ 13 for a pause
(2 secs)

Press *40 PABX ACCESS CODE

Enter up to 4 digits if PABX is needed to access an outside line. If you need to enter fewer than 4 digits, exit by pressing [*] and next field number (e.g., 41). To clear entries from field, press *40*.

Press *41 PRIMARY PHONE NO.

Enter up to 12 digits. If you enter fewer than 12 digits, exit by pressing [*] and next field number (e.g., 42). To clear entries from field, press *41*.

Press *42 SECONDARY PHONE NO.

Enter up to 12 digits. If you enter fewer than 12 digits, exit by pressing [*] and next field number (e.g., 43). To clear entries from field, press *42*.

Press *43 SUBSCRIBER ACCOUNT NO.

Press *45 PHONE SYSTEM SELECT

If central station receiver *is not* on a satellite-linked line:

0 = Pulse Dial, **1** = Tone Dial.

If central station receiver *is* on a satellite-linked line:

2 = Pulse Dial, **3** = Tone Dial. (Default is 1.)

Press *46 REPORT FORMAT, PRIMARY/SECONDARY

Determines which format is to be used to report to the central station.

0 = ADEMCO Contact ID Reporting

1 = ADEMCO Local Audio (Default is 0.)

NOTE: The maximum number of Alarm and Alarm Restore reports during one armed period is determined by field *92.

Press *47 SPLIT/DUAL REPORTING

Enter **0** to disable (Backup report only). (Default is 0.)

Split/Dual Reporting Table

	TO PRIMARY PHONE #	TO SECONDARY PHONE #
1 =	Alarms, Restore, Cancel	Other Reports
2 =	All except Open/Close, Test	Open/Close, Test
3 =	Alarms, Restore, Cancel	All reports
4 =	All except Open/Close, Test	All reports
5 =	All reports	All reports

Press *48 15-SECOND DIALER DELAY, BURGLARY

Enter **0** for no, or **1** for yes. Default is 0 (no delay).

Press *49 PERIODIC TEST REPORT

Select the desired Test report interval.

0 = none; **1** = 24 hours; **2** = weekly; **3** = 28 days. Default is 0 (none). Test Report Code entered in field *64 is sent.

Reports with Subscriber No.

**Programming System Status and Restore Report Code Enables
(*60 – *68, *69 – *75)****Enter codes as follows:**

1–9, 0, B, C, D, E, or F. Enter [#] + **10** for “0,” [#] + **11** for “B,” [#] + **12** for “C,” [#] + **13** for “D,” [#] + **14** for “E,” [#] + **15** for “F.”

With ADEMCO Contact ID Reporting: Enter any digit (other than “0”) in the *first* box, to enable zone to report. This is an “enabling” code only and is disregarded in the actual reporting to the central office. Entries in the *second* boxes will be ignored.

A “0” (*not* “# + 10”) in the *first* box will disable the report.

Examples:

For Code Enable **30** (two digits), enter:

3	0
---	---

For Code Enable **B0** (hexadecimal), enter:

#+11	0
------	---

Press *60 TROUBLE REPORT CODE ENABLE

This will be sent if a zone goes into trouble.

Press *61 BYPASS REPORT CODE ENABLE

This will be sent when a zone is manually bypassed.

Press *62 MAINS LOSS REPORT CODE ENABLE

Timing of this report is random with a delay of up to 48 minutes. The keypad response is about 6 seconds to display the mains failure. The Restore report has a random delay of up to about 12 minutes. If mains restores before the report goes out, there is no mains Restore report.

Press *63 LOW BATTERY REPORT CODE ENABLE

This will be sent when a low-battery condition exists in the system’s standby battery.

NOTE: The system checks connection to the standby battery every 3 minutes.

Press *64 TEST REPORT CODE ENABLE

This is sent periodically to test that the communicator and phone lines are operational (frequency of report is selected in field *51).

Press *65 OPEN REPORT CODE ENABLE

This is sent upon disarming of the system.

Press *66 ARM AWAY/STAY REPORT CODE ENABLES

This option allows for independent programming of AWAY and STAY reports.

Press *67 RF XMTR. LOW BATTERY REPORT CODE ENABLE

This is sent in the event that a wireless transmitter low-battery condition exists.

Press *68 CANCEL REPORT CODE ENABLE

This is sent upon disarming of the system after an alarm condition was reported.

Press *69 RESTORE REPORT TIMING

This option is used to select the desired occurrence of Restore reports.

Press *70 ALARM RESTORE REPORT CODE ENABLE

This is sent when the zone that caused an alarm is restored to its nonfaulted condition.

Press *71 TROUBLE RESTORE REPORT CODE ENABLE

This is sent when a trouble in a zone is restored.

Press *72 BYPASS RESTORE REPORT CODE ENABLE

This is sent when a zone that has been bypassed is unbypassed.

Press *73 MAINS RESTORE REPORT CODE ENABLE

This is sent when mains power has been restored after a mains power outage.

Press *74 LOW BATTERY RESTORE REPORT CODE ENABLE

This is sent when a system low-battery condition is restored to normal.

Press *75 RF XMTR. LOW BATTERY RESTORE CODE ENABLE

This is sent when a transmitter that previously sent in a low-battery message has sent a message indicating it no longer has a low-battery condition.

Press * 91 CUSTOM OPTION SELECTION (Default is 0)

Enter one digit to represent one of the following:

0 = None selected

8 = Exit delay restart

Exit Delay Restart: Allows user to permit entry into the protected premises by pressing [*] while the system is armed in the STAY or INSTANT mode (without having to disarm and rearm the system) by an appropriate key press.

Press *92 NUMBER OF REPORTS IN ARMED PERIOD

This option can be used to limit the number of messages (Alarm and Alarm Restore reports) sent to the central station in an armed period. "0" limits reports to a total of 10; "1" allows an unlimited number of reports.

Press *94 DOWNLOAD PHONE NUMBER

Enter up to 12 digits:

0-9, [#] + 11 for "*,", **[#] + 12** for "#," **[#] + 13** for a pause. Do not fill unused spaces. End field by entering [*].

If you enter fewer than 12 digits, exit field by pressing [*] and next field number. To clear entries, press *94*.

Press *95 RING DETECTION COUNT FOR DOWNLOADING

Refer to the chart on the following page and program this field accordingly.

Ring Detection Count Chart

<i>If you are using</i>	<i>...and if you are</i>	<i>...and if you</i>	
-------------------------	--------------------------	----------------------	--

(Yes) or not using (No)	using (Yes) or not using (No)	are (Yes) or are not (No)	...then program Field *95 this way:
Phone Module	Answering Machine	Downloading	
Yes	No	No	Set for value other than 0 (1-14). This enables control panel to answer phone call. Otherwise, module cannot be accessed.
Yes	Yes	No	Set for value higher than number of rings for which answering machine is set. Example: If machine is set for 4 rings, program for 5 or higher. Phone module can still be accessed if answering machine is turned off and does not answer phone call.
Yes	No	Yes	Set for value other than 0 (1-14).
Yes	Yes	Yes	15 to bypass answering machine. See note below.
No	No	No	Enter 0.
No	Yes	No	Enter 0.
No	No	Yes	Enter 1-14.
No	Yes	Yes	Enter 15.



If you entered 15 in field *95 to bypass an answering machine, and a 4285/4286 Phone Module is included in the installation, you should note the following:

When calling in from an off-premises phone (to receive a status report or execute a command), the user should make the initial call, allow 1 to 3 rings only, hang up, then call in again. The phone module will now seize the line, and the caller will hear 2 long tones, followed by the usual voice prompt for the 2-digit phone access code. If this procedure is not followed, phone module operation will not be possible.

***96 INITIALISE DOWNLOAD ID AND SUBSCRIBER ACCT. NO. FOR DOWNLOADING**

(No data entry required)

This completes the communication programming.

Exit the Programming mode by keying *99.

Refer to *Section 14: TESTING THE SYSTEM* to check system operation.

Testing the System

In This Section

◆ Test Procedure

◆ To the Installer

Test Procedure

After installation is completed, test the security system carefully, as follows:

1. With the system in the disarmed state, check that all zones are intact. If the keypad displays a **“NOT READY”** message, press [*] to display the faulted zone(s). Restore faulted zone(s) if necessary, so that the **“READY”** message is displayed.

Fault and restore every sensor individually to ensure that it is being monitored by the system.

2. Enter the **Security code** and press the **TEST** key. The external sounder will sound for 1 second.

The keypad should sound 3 beeps each time a contact is faulted. A **Test** report should be transmitted (if programmed) to the central station immediately. If the backup battery is discharged or missing, the sounder may not turn on and a Low-Battery report will be transmitted with a Test report.

The keypad will beep once per minute as a reminder that the system is in the Test mode.

To turn off the test mode, enter **Security code** and press the **OFF** key.

NOTE: For 5800 wireless systems, triggering a zone set to Arm-AWAY, Arm-STAY, or Disarm will take the system out of the Test mode and cause that action.

Alarm messages will be sent to the central station during the following tests. Notify the central station in advance that tests will be in progress.

3. Arm the system and fault one or more zones. After 15 seconds (if you selected optional dialler delay), silence alarm sounder(s) by entering the **Security code** and then pressing **OFF**.

Check the entry/exit delay zones.

4. Check the keypad-initiated alarms that you programmed in the system by pressing the Panic key (key pairs on some keypads). If you programmed the system for audible emergency, the keypad will emit a steady alarm sound, and will display **“ALARM” and the zone number**. Silence the alarm by entering the **Security code** and then pressing **OFF**.

If you programmed the system for silent emergency, there will be no audible alarms or displays, but a report will be sent to the central station.

5. If you installed output relay units, test their programmed action.
6. Notify the central station when all tests are finished, and verify results with them.
7. To test the wireless part of the system and the RF receiver, perform the two tests (Transmitter Sniffer mode and Go/No Go Test mode) that follow:

a. TRANSMITTER SNIFFER MODE

Make sure the system is disarmed before trying to enter this mode.

Press [**Installer code**] + [#] + **3**. This initiates a procedure that will check that all transmitters have been properly programmed.

NOTE: If the communicator is in the process of sending a report to the central station, the system will not go into the Sniffer mode. In that case, wait a few minutes, then try again.

The keypad will display all zone numbers of wireless units programmed into the system. As the system receives a signal from each of the transmitters, the zone number of that transmitter will **disappear** from the display. The transmitter codes may be checked upon installation, or in an installed system. All the wireless zone numbers should disappear after about 1-1/2 hours.

To speed this process, you can physically fault and then restore all sensors.

NOTES:

- All BR-type units must physically be activated to clear the display.
- When **one** button of a transmitter (RF, UR, or BR) is activated, all zones assigned to other buttons on that transmitter are cleared. This also applies to 5816 and 5817 Transmitters that have multiple loops (zones).
- Any transmitter serial number that is not entered will not turn off its zone number.

Exit this mode by keying **[Installer code] + OFF**.

b. GO/NO GO TEST MODE

By pressing **[Installer code] + [#] + 4**, you enter a mode similar to the user Test mode (code + TEST), but the wireless receiver gain is reduced.

Checking in this mode assists in determining good mounting locations for the transmitters when the system is being installed, and verifies that the RF transmission has sufficient signal amplitude margin for the installed system.

Exit the mode by entering **[Installer code] + OFF**.

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.

System Operation

In This Section

◆ Security Codes

◆ Trouble Conditions

◆ Keypad Functions

Security Codes

Installer Code

The installer programs the 4-digit Installer code initially as part of the programming procedure. The factory default Installer code is "4-1-1-1," but may be changed in field *20.

NOTE: The Installer code is defined as User No. 1.

The Installer code is the only code that can allow reentry into Programming mode. In normal operation mode, only the Master code can be used to enter the User codes (refer to "Assigning the Master Code").

See the *MECHANICS OF PROGRAMMING* section in the separate **Programming Guide** for details on exiting the Programming mode via *98 or *99.

Assigning the Master Code

In normal operation mode, assign the 4-digit Master code as follows:

Installer code + 8 + 2 + 4-digit Master code

NOTE: The Master code is defined as User No. 2.

Changing the Master Code

In normal operation mode, you can change the Master code by entering:

Master code + 8 + 2 + new Master code + new Master code again

User Codes

In normal operation mode, you can use the Master security code to assign up to 4 secondary users 4-digit security codes (Users 3–6). It can also be used to remove Secondary User codes from the system (individually).*

*If a Duress code (User No. 8) is not assigned, up to 5 Secondary User codes (Users 3–8) will be available for assignment.

To assign (or change) a Secondary security code, enter:

Master code + [8] + User # (3–6**) + desired 4-digit User

**User No. 8 is reserved for a Duress code. However, if a Duress code is not assigned, a Security code can be assigned to an additional user (who will be User No. 8).

The system will emit a single beep when each Secondary User code has been successfully entered.

To delete a Secondary security code, enter:

Master code + [8] + User #



- All Master and Secondary User codes permit access to the system for arming, disarming, etc.
 - If a Secondary User code is inadvertently repeated for different users, the lower user number will take priority.
 - Opening and Closing reports are sent for the Master code as No. 02, with the appropriate subscriber number. Secondary User codes are sent as Nos. 3 through 6 (or 8, if no Duress code is assigned), respectively, with the appropriate subscriber number.
-

Duress Code

Important:
This code is useful only when the system is connected to a central station.

This feature is intended for use when the user is forced to disarm or arm the system under threat. When used, the system will act normally, but can silently notify the central station of the user's situation, if that service has been provided.

The Duress code may be any 4-digit code assigned to User No. 8.

To program a Duress code, enter:

Master code + CODE [8] + [8] + [desired 4-digit Duress code]

The keypad will beep once to confirm acceptance.

NOTE: The Duress code must differ from the Master code or any other user's code.

To change the duress code, enter:

Master code + [8] + [8] + [new 4-digit Duress code]

When the keypad beeps once, it signifies that the code has been changed.

To delete the Duress code, enter:

Master code + [8] + [8]

and wait for the keypad to beep.

When the keypad beeps once, it signifies that the code has been deleted.

Keypad Functions

General Information

Note that if you enabled QUICK ARM (field *21), the [#] key can be pressed instead of entering the security code, for any of the arming procedures (AWAY, STAY, INSTANT, MAXIMUM, etc.). The security code is *always* required, however, when disarming the system.

The Quick Arm feature will function only if the Master code has been programmed (see "Assigning the Master Code" on the previous page).

The keypad allows the user to arm and disarm the system, and perform other system functions, such as bypassing zones; and to display zone descriptors. Zone and system conditions (Alarm, Trouble, Bypass) are displayed in the display window.

When an alarm occurs, keypad sounding and external sounding will occur, and the keypad will display the zone(s) in alarm. Pressing any key will silence the keypad sounder for 10 seconds. Disarming the system will silence both keypad and external sounders. When the system is disarmed, any zones that were in an alarm condition during the armed period will be displayed (memory of alarm). To clear this display, simply repeat the disarm sequence (enter the security code and press the OFF key) *again*.

The keypads also feature chime annunciation. Three Panic key pairs, or individual Panic keys (depending on keypad type – see "Panic Keys" on next page), can send silent, audible, Fire, or Personal Emergency alarms to the central station, if that service is connected.

Arming, Disarming Functions, etc.

The following is a brief list of system commands. For detailed information concerning system functions, refer to the User's Manual.

Disarmed, Not Ready..... Before arming, the system must be in the READY condition (all zones not on the exit route must be intact). If the "NOT READY" message appears, press the READY [*] key to display faulted zones.

Arming Away..... Enter code + AWAY [2].

Arming Stay..... Enter code + STAY [3].

Arming Instant..... Enter code + INSTANT [7].

Arming Maximum..... Enter code + MAXIMUM [4].

Quick Arming..... (If enabled). Simply press [#] in place of the code, then press AWAY, STAY, INSTANT, or MAXIMUM to arm system as desired. Note that the [#] key cannot be used in place of the code when disarming the system.

Disarming..... Enter code + OFF [1].

Bypassing Zones..... Enter code + BYPASS [6] + zone number(s).

Chime Mode..... Enter code + CHIME [9].

To turn chime off, enter code + CHIME [9] again.

Summary of Arming Modes Chart

Arming Mode	Features for Each Arming Mode			
	Exit Delay	Entry Delay	Perimeter Armed	Interior Armed
AWAY	Yes	Yes	Yes	Yes
STAY	Yes	Yes	Yes	No
INSTANT	Yes	No	Yes	No
MAXIMUM	Yes	No	Yes	Yes

Panic Keys

There are three individual lettered keys (or Panic key pairs on some keypads) that, if programmed, can be used to manually initiate alarms and send a report to the central station.

You can program each individually for 24-hour Silent, Audible, Personal or Fire Emergency responses. The Panic function is activated when the appropriate lettered key is pressed for at least 2 seconds, or when both keys of the appropriate key pair are pressed at the same time. See chart below.

The Panic functions are identified by the system as follows:

Panic Function Chart

Keys	Displayed as Zone
[1] & [*], or [A]	95
[*] & [#], or [B]	7
[3] & [#], or [C]	96

NOTES:

- Keys [A], [B], [C] are not on all keypads.
- Key [D], if present, does not perform a Panic function. See note below.



For the Silent Panic functions to be of practical value, the system must be connected to a central station.

4285/4286 Phone Module (if used)

Refer to the separate instructions supplied with the phone module for detailed information concerning its operating procedures. The checkout procedure in *Section 8: 4285/4286 PHONE MODULE* should have been performed following installation of the phone module.

NOTE: You **cannot** use the phone module to add User codes in this system. User codes must be added by using a wired keypad.

Relay Outputs (if used)

If the system uses relay outputs, two keypad entries available to the user are included among the system operation choices (34 and 35) that you may program (see *Section 7: RELAY OUTPUTS*). They can manually activate or deactivate the relay(s) for starting or stopping some action, such as turning lights on or off, etc.

These keypad entries are: **Security Code + [#] + 7**
and **Security Code + [#] + 8**

NOTE: Whichever entry is used to start/stop the action cannot also be used to stop/start it. The opposite action must be performed either by the other keypad entry or by some other event or operation offered in the programming section.

Trouble Conditions (See Troubleshooting Guide also)**General Information**

The word "**CHECK**" on the keypad's display, accompanied by a rapid beeping at the keypad, indicates that there is a trouble condition in the system. The warning sound can be silenced by pressing any key. Instruct users to call for service immediately upon seeing any of the following messages.

"CHECK" and "BATTERY" Displays

- **A display of "CHECK" and one or more zone numbers** indicates that a problem exists with the displayed zone(s) and requires attention.
- A display of "**CHECK**" and "**09**" indicates that communication between the control and a zone expander or wireless receiver is interrupted. Check the wiring and DIP switch settings on the units.
- **If there are wireless sensors in the system**, the "Check" condition may also be caused by some change in the environment that prevents the receiver from receiving signals from a particular sensor.
- **A display of "BAT"** (on fixed-word keypads) **or "SYSTEM LO BAT"** (on alpha keypads) **with no zone number** indicates that the system's main standby battery is weak.
- **A display of "BAT"** (on fixed-word keypads) **with a zone number and a once-per-minute beeping at the keypad** indicates that a low-battery condition exists in the wireless sensor displayed (zone "00" indicates a wireless keypad). If the battery is not replaced within 30 days, a "CHECK" display may occur.
- **A display of "KYPD LB"** on alpha keypads (without a zone number) indicates that a wireless keypad (5827, 5827BD) has a low battery. If the battery is not replaced within 30 days, a "CHECK" display may occur.

NOTE: Some wireless sensors contain a nonreplaceable long-life battery that requires replacement of the entire unit at the end of battery life (e.g., Nos. 5802, 5802CP).

Power Failure

- **If there is no keypad display at all**, operating power for the system has stopped and the system is inoperative.
NOTE: The control panel will power up in its previous state (armed or disarmed) after a complete power failure, but will not retain any memory of bypasses.
- **If the message "AC LOSS"** (on alpha keypads) **or "NO AC"** (on fixed-word keypads) **is displayed**, the keypad is operating on battery power only.

NOTE: There is a random delay of up to 48 minutes before the system will report a mains failure to the central station. The keypad response is about 6 seconds. The Restore report has a random delay of up to 12 minutes (if the Mains Failure report was sent).

- **If the battery standby capacity is used up during a prolonged mains power outage,** the control's auxiliary power will shut down to minimize deep discharge of the battery.

Other Displays

(Fixed-word displays are in parentheses)

Busy-Standby (dI)	If this remains displayed for more than 1 minute, the system is disabled.
Modem Comm (CC)	The system is in communication with the central station for change of function or status verification.
Comm. Failure (FC)	A communication failure has occurred.
Open Circuit (OC)	The keypad is not receiving signals from the control and sees an open circuit.
Long Rng Trbl (bF)	Backup ACM communication failure.

Troubleshooting Guide

In This Section

◆ System (including Wireless)

◆ Smoke Detectors

◆ Control

SYSTEM (including Wireless)

SYMPTOM	POSSIBLE CAUSE	REMEDY
1. Transmitter signal not received at 5881.	1a. Transmitter or 5881 not properly powered. 1b. If Transmitter is 5827/5827BD, House ID code not set in field *24, or transmitter not set to same House code set in that field. 1c. Transmitter located too far from 5881. 1d. Metal shielding between transmitter and 5881. 1e. Transmitter malfunctioning. 1f. 5881 malfunctioning. 1g. Transmitter No. (zone) not programmed. 1h. 5881 address incorrect. 1i. Field *22 not properly programmed.	1a. Check or change transmitter's battery. Check the control's mains power. 1b. Check code switches inside transmitter. Must match with RF House code programmed in control. 1c. Move transmitter or 5881. 1d. Check for large metal obstructions, then relocate transmitter if necessary. 1e. Verify by activating 5881 with another, similar transmitter. If O.K. now, return defective transmitter. 1f. Verify by making sure other transmitters cannot activate 5881. If defective, replace and return original 5881. 1g. Verify programming. 1h. Set DIP switch for address "0." 1i. Set field * 22 to "2" for 5881 RF receiver.
2. Transmitter zone number appears during Transmitter Sniffer mode, but does not clear.	2a. Transmitter zone type (ZT) is set to 00 (Not Used). 2b. Transmitter battery not installed. 2c. 5800 System transmitter serial no. not entered in system.	2a. Set ZT to a valid active zone type in field *56. 2b. Install proper battery. 2c. Enter unit's serial no. in field *56 or *83.
3a. "Bat" or "System Lo Bat" (with no zone no. displayed). 3b. "Bat" + "00" (fixed-word keypad display) or "KYPD LB" + "00" (alpha keypad display). 3c. "Bat" or "Lo Bat" + "nn."	3a. System battery is low or missing. 3b. Remote RF wireless keypad battery low. 3c. Transmitter in zone "nn" has a low battery.	3a. Replace battery in control box. 3b. Replace battery in wireless keypad. 3c. Replace transmitter battery in zone "nn."

SYMPTOM	POSSIBLE CAUSE	REMEDY
4. Periodic beep(s) from keypad.	4a. System is in Test mode. 4b. A wireless transmitter low battery has occurred and is displayed. 4c. A supervision CHECK has occurred.	4a. Enter [Code] + OFF to exit Test mode. 4b. Enter [Code] + OFF and replace the battery. 4c. Check the wireless transmitter indicated. Restore communication to the RF receiver to cancel the condition.
5. With 5800 RF System, no response to a transmitter in normal operation, although zone number clears during Transmitter Sniffer mode.	Put control in Test mode. If zone does not respond, try operating the tamper switch or another input to the transmitter. 5a. If another input causes the zone to be displayed, the wrong loop input was entered when programming. 5b. If no response at all from this transmitter, this physical transmitter has not been entered into the system.	5a. Delete input's serial number (not the zone), and enter the proper loop input (see field *56 or *83). 5b. Determine which transmitter is programmed for this zone and reprogram as necessary.
6. Nuisance or phantom alarm.	6a. Sensors not properly installed, wired, or monitored. 6b. Universal transmitter (5817) programmed incorrectly.	6a. Check installation to see if in accordance with established procedure. 6b. Check programming for transmitter.
7. Intrusion alarm for no apparent reason.	7a. Protected door or window opened while system is armed. 7b. Improper user operation of exit/entry delays. 7c. Magnets located too far from switches, and/or doors and windows not properly aligned. 7d. Magnetic contacts improperly connected or wire broken. 7e. Entry door programmed as "Instant." 7f. Loose-fitting door or window being rattled by wind or vibrations.	7a. Check with occupants of protected premises in case protected door or window was opened unintentionally during armed period. 7b. Check programming of entry delays. 7c. Check all openings for proper switch and magnet orientation. 7d. Check wiring connections. Be sure wires are properly stripped and are tightly fastened to screw terminals. 7e. Check and revise programming. Reprogram transmitter number. 7f. Mount magnet closer to mating switch.
8. Repeated "Low-Battery" signal.	8a. Transmitter located where temperature drops below 0°C. 8b. Poor quality or unspecified battery in transmitter. 8c. Transmitter malfunctioning.	8a. Change location. Use magnetic contacts to protect opening. 8b. Check battery. Use only batteries specified (does not apply to transmitters with non-replaceable batteries). 8c. Replace faulty transmitter.
9. "CHECK" and "09" displayed.	10. Communication between control and zone expander or wireless receiver is interrupted.	10. Check wiring connections of expander and receiver to control. Check DIP switch settings on the units.

CONTROL

SYMPTOM	POSSIBLE CAUSE	REMEDY
1. "NO AC" displayed.	1a. Interrupted mains power supply.	1a. Check transformer connection and power line circuit breaker. Transformer must be connected to an unswitched (24-hour) outlet.
2. Digital communicator message not being received.	2a. Control in Test mode. 2b. Telephone connection not secure. 2c. Digital communicator malfunctioning. 2d. Telephone number in program needs prefix or access code. 2e. Telephone call to central monitoring station requires operator assistance.	2a. Remove from Test mode. 2b. Check all connections. 2c. Check with a different VISTA-10SEa. 2d. Program prefix or access code into the control. 2e. System cannot work in this situation.
3. Does not arm properly.	3a. READY light not on.	3a. Check for faulted non-exit route zone(s) by pressing [*] ; make faulted zone(s) intact, or use Bypass arming, if desired.

SYMPTOM	POSSIBLE CAUSE	REMEDY
4. VISTA-10SEa doesn't respond to keystrokes on keypad.	4a. "CC" or "MODEM COMM" displayed. 4b. "d1" or "BUSY-STANDBY" is displayed. 4c. "E4" or "E8" displayed. 4d. Keypad address setting incorrect.	4a. System is in communication with downloader at central station. Wait until download session is finished. 4b. System has just been powered and is in its one-minute initialisation. To bypass this time, press [#] + 0. 4c. More zones have been programmed than the zone expansion modules can handle. Delete some zones or use a higher-capability RF receiver. 4d. Keypads must be set for address 31 (Nonaddressable mode).

SMOKE DETECTORS

SYMPTOM	POSSIBLE CAUSE	REMEDY
1. Detector alarms, no apparent reason.	1a. Dust, dirt in sensing chamber. 1b. Improper location. 1c. Unit malfunctioning.	1a. Clean unit's sensing chamber with vacuum cleaner per unit's instructions. 1b. See unit's instructions for locations to avoid. Relocate as necessary. 1c. Replace detector.
2. Detector's siren sounds.	2a. Unit not receiving required power. 2b. Unit malfunctioning.	2a. Check for proper installation of battery. Try new battery. 2b. Replace detector.

Specifications & Accessories

In This Section

◆ Specifications

◆ Accessories (Compatible Devices)

Specifications

VISTA-10SEa Security Control

1. Physical: 318mm W x 368mm H x 76mm D)

2. Electrical:

Voltage Input: 16.5VAC from 1.5 Amp plugpack, Model XF1.

Rechargeable Backup Battery: 12VDC, 6.5AH (sealed lead acid type).

Charging Voltage: 13.8VDC.

Alarm Sounder: 12V, 2.0 Amp output.

Auxiliary Power Output: 12VDC, 500mA max. Interrupts for 4-wire smoke detector reset.

Standby Time: (see Table in *Section 10: FINAL POWER-UP*)

3. Communication:

Formats Supported:

ADEMCO Local Audio (3 characters/sec., DTMF Data Tones, no ACK or KISSOFF).

ADEMCO Contact ID Reporting

10 characters/sec., DTMF Data Tones, 1400/2300Hz ACK, 1400Hz KISSOFF.

Line Seize: Double Pole.

4. Maximum Zone Resistance: Zones 1–6 = 300 ohms excluding EOLR.

6128EX/6128RF Remote Keypad

1. Physical: (146mm W x 121mm H x 26mm D).

2. Electrical:

Voltage Input: 12VDC.

Current Drain: 30mA (6128EX), 65mA (6128RF).

3. Interface Wiring: To control panel's keypad connection points.

RED (R): 12VDC input (+) aux power.

GREEN (G): Data Out to control.

YELLOW (Y): Data In from control.

BLACK (B): Ground.

6137 Remote Keypad

1. Physical: (129mm W x 162mm H x 45mm D).

2. Electrical:

Voltage Input: 12VDC.

Current Drain: 85mA.

3. Interface Wiring: Same as 6128, except uses a color-coded wire loom.

6139 Remote Keypad

1. **Physical:** (129mm W x 162mm H x 45mm D).
2. **Electrical:**
Voltage Input: 12VDC.
Current Drain: 100mA.
3. **Interface Wiring:** Same as 6128EX, except uses a colour-coded wire loom.

5881L, 5881M, 5881H RF Receivers (5800 System)

1. **Physical:** 188mm W x 112mm H x 37mm D.
NOTE: 277mm H with antenna.
2. **Electrical:**
Voltage Input: 12VDC.
Current Drain: 35mA.
3. **Interface Wiring:** Same as 6128EX, except uses a colour-coded wire loom.
4. **Range:** 60m nominal indoors from wireless transmitters
(the actual range to be determined with system in Test mode).
5. **Zones:** 5881L: accepts up to 8 transmitters.
5881M: accepts up to 16 transmitters.
5881H: accepts up to 16 transmitters.

5800TM Transmitter Module (used with 5827BD Wireless 2-Way Keypad and 5804BD Wireless 2-Way RF Key)

1. **Physical:** 57mm W x 105mm H x 22mm D).
2. **Electrical:**
Voltage Input: 12VDC.
Current Drain: 20mA.
3. **Interface Wiring:** Same as 6128EX.

4204 Relay Module

1. **Physical:** 169mm W x 108mm H x 32mm D).
2. **Electrical:**
Voltage Input: 12VDC.
Current Drain: 15mA (Relays off), 180mA (Relays on).
3. **Interface Wiring:** Same as 6128EX.
4. **Four Output Relays:** SPDT Contacts. Rating: 2A max at 28VDC/AC.

4219 Wired Expansion Module

1. **Physical:** 169mm W x 108mm H x 32mm D.
2. **Electrical:**
Voltage Input: 12VDC.
Current Drain: 35mA.
3. **Interface Wiring:** Same as 6128EX.
4. **Four Output Relays:** SPDT Contacts. Rating: 2A max at 28VDC/AC.

4229 Wired Expansion /Relay Module

1. **Physical:** 169mm W x 108mm H x 32mm D).
2. **Electrical:**
Voltage Input: 12VDC.
Current Drain: 35mA (Relays off), 100mA (Relays on).
3. **Interface Wiring:** Same as 6128EX.

- 4. **8 EOLR Loops (A–H):** Loop A can be set for fast (10–15mSec) response to an open.
- 5. **Two Output Relays:** SPDT Contacts; Rating: 2A max at 28VDC/AC.

4285/4286 Phone Module

- 1. **Physical:** 169mm W x 108mm H x 32mm D.
- 2. **Electrical:**
 - Voltage Input: 12VDC.
 - Current Drain: 160mA.
- 3. **Device Address:** Permanently set to address 4.
- 4. **Interface Wiring:** See *Section 8: 4285/4286 PHONE MODULE*.
- 5. **Telephone Line Connections:** See *Section 8: 4285/4286 PHONE MODULE*.

Accessories (Compatible Devices)

4-Wire Smoke/Combustion Detectors

System Sensor

1412	4-wire ionisation products of combustion detector.
A77–716B	EOL relay module (supervisory module for wired 4-wire fire zone).
2112/24T	Low-profile 4-wire photoelectric smoke detector with 57° C heat detector.

WARNING!

THE LIMITATIONS OF THIS ALARM SYSTEM

While this System is an advanced design 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:

- 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 mains 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, they may not activate or provide early warning for a variety of reasons in as many as 35% of all fires. 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 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.

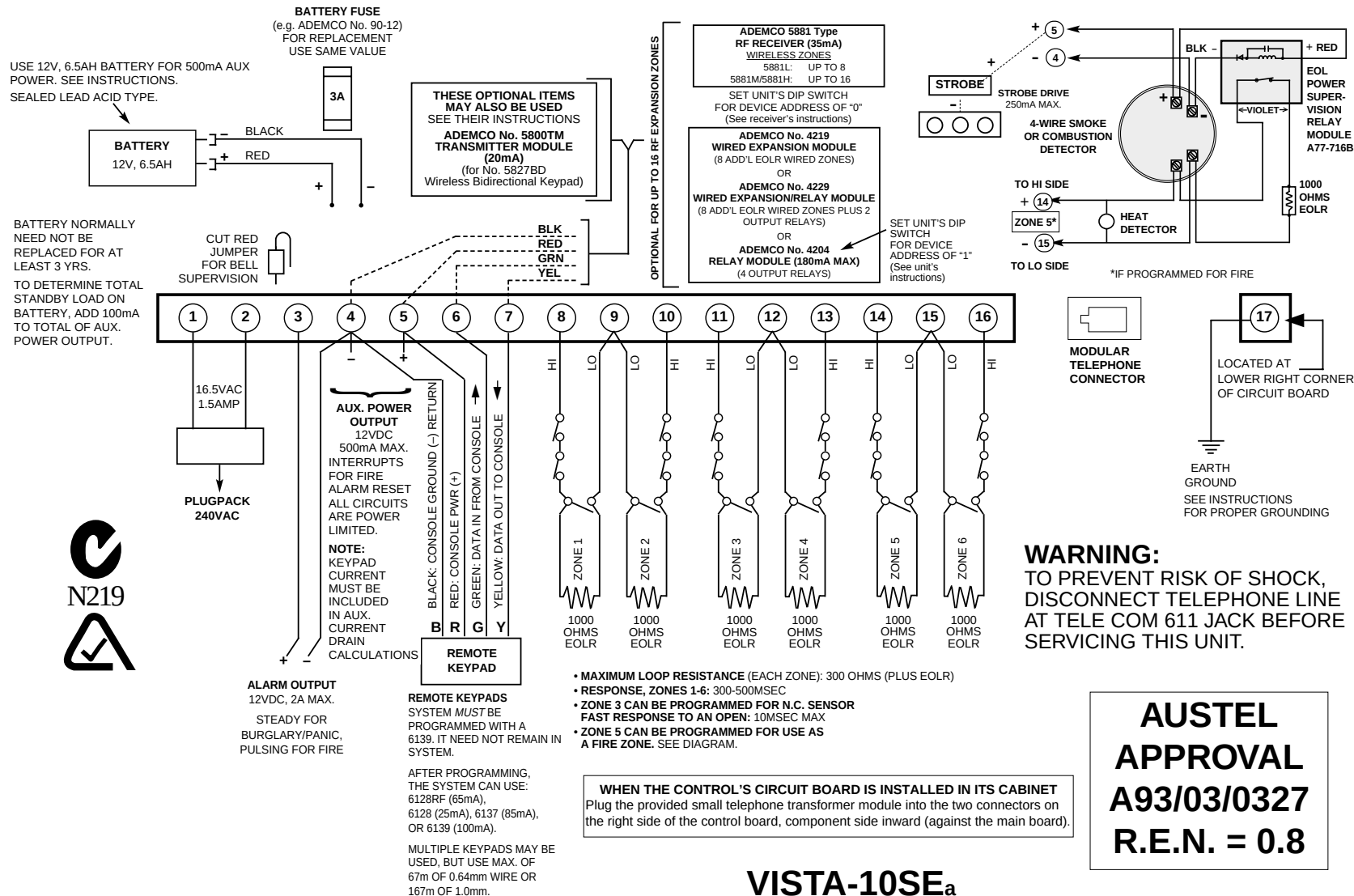
We continue to develop new and improved protection devices. Users of alarm systems owe it to themselves and their loved ones to learn about these developments.

LIMITED WARRANTY

Alarm Device Manufacturing Company, a Division of Pittway Corporation, and its divisions, subsidiaries and affiliates ("Seller"), 165 Eileen Way, Syosset, New York 11791, warrants its security equipment (the "product") to be free from defects in materials and workmanship for 24 months from date of original purchase, under normal use and service. Seller's obligation is limited to repairing or replacing, at its option, free of charge for parts, labor, or transportation, any product proven to be defective in materials or workmanship under normal use and service. Seller shall have no obligation under this warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than the Seller. In case of defect, contact the security professional who installed and maintains your security equipment or the Seller for product repair.

This two year Limited Warranty is in lieu of all other express warranties, obligations or liabilities. THERE ARE NO EXPRESS WARRANTIES, WHICH EXTEND BEYOND THE FACE HEREOF. ANY IMPLIED WARRANTIES, OBLIGATIONS OR LIABILITIES MADE BY SELLER IN CONNECTION WITH THIS PRODUCT, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, ARE LIMITED IN DURATION TO A PERIOD OF TWO YEARS FROM THE DATE OF ORIGINAL PURCHASE. ANY ACTION FOR BREACH OF ANY WARRANTY, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY, MUST BE BROUGHT WITHIN 24 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL SELLER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT. Some states do not allow limitation on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Seller does not represent that the product may not be compromised or circumvented; that the product will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of a burglary, robbery, fire or other events occurring without providing an alarm, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. HOWEVER, IF SELLER IS HELD LIABLE, WHETHER DIRECTLY OR INDIRECTLY, FOR ANY LOSS OR DAMAGE ARISING UNDER THIS LIMITED WARRANTY OR OTHERWISE, REGARDLESS OF CAUSE OR ORIGIN, SELLER'S MAXIMUM LIABILITY SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE OF THE PRODUCT, WHICH SHALL BE THE COMPLETE AND EXCLUSIVE REMEDY AGAINST SELLER. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state. No increase or alteration, written or verbal, to this warranty is authorized.



®ADEMCO

ALARM DEVICE MANUFACTURING CO.

A DIVISION OF PITTHWAY CORP.

Pittway Australia Pty, Ltd.

**Unit 5, Riverside Centre, 24-28 River Road West
Paramatta, NSW 2150, Australia**



N7227AUV2 12/99