4284/4285
VOICE MODULE

Ademco's VIP
(VISTA Interactive Phone)

U.S. PATENT No. 4791658

INSTALLATION INSTRUCTIONS and OPERATING GUIDE

ADEMCO

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GENERAL DESCRIPTION

Application

The Ademco 4284 and 4285 Voice Modules are add-on accessories that can be used with certain Ademco controls* to provide an interactive phone capability to the security system. This feature will permit access to a security system via a Touch-tone phone (either on premises or by a call-in when away). *Only one Voice Module can be used in a system*.

These Voice Modules can only be used with systems employing addressable consoles. Addressable consoles that may be used are: 4137AD, 5137AD, 6128, 6137, 6138, and 6139. For controls that do not support addressable consoles (such as the **4140XMP and VIA30+** controls), an addressable console must still be used, **but set to the non-addressable mode** (for units with DIP switches, all in UP position, address 31)**.**

* See the control's Installation Instructions for information on whether the control can support a Voice Module.

When properly connected, the Voice Module will enable the user to do the following via a Touch-tone telephone:

1. Receive synthesized voice messages over the phone regarding the status of the security system.
2. Arm and disarm the security system and perform most other commands using the telephone keypad, with voice annunciation being provided as confirmation after any command is entered.
3. Used to turn certain lights/appliances on and off via the telephone using the Relay Command Mode. This capability is possible only with the 4285 Voice Module and with controls supporting the Relay Command Mode.

Note: If the system has relays, but does not support the Relay Command Mode, they still can be controlled via the phone (in same way as from a wired console), but no voice feedback will occur.

The on-premises phone system need not have Touch-tone service, but the phone used for phone access must have Touch-tone capability (switchable phones should be set for Touch-tone temporarily before attempting phone access). However, an off-premises phone that does not have Touch-tone service and must use Pulse for dialing may not permit switching to Touch-tone *after* dialing; in such a case, phone access from that phone will not be possible.

Differences between the 4284 and 4285 Voice Modules

Compared to the 4284, the 4285 offers increased capabilities when used with a control that supports the 4285. These include:

- An expanded word vocabulary.
- A special Relay Voice Descriptors Vocabulary for use with the Relay Command Mode described in item 3 above.

4284KT Kit

This kit consists of a 4284 Voice Module, plus an "upgrade" EPROM for the **4140XMP.** For details regarding this upgrade, see the section entitled *CHANGES TO 4140XMP CONTROL WHEN USING THE 4284 VOICE MODULE* toward the end of this manual

Identifying the Voice Module

Both models are identical in appearance. To identify the model, remove the cover and note the number stamped on the PC board, as follows:

4284 will be marked SA4284.

4285 will be marked SA4285.

4284 & 4285 Specifications

Physical: 6-7/16” (163mm) W x 4-1/4” 108mm) H x 1-1/4” (32mm) D.

Electrical: Input voltage: 12V DC (from control).
Current Usage: 160 mA.

Device Address: Permanently set to address 4.

FCC Registration No.: AC3USA–74659–KX–N

Ringer Equivalence: 1.0B

The 4284 & 4285 Voice Modules comply with FCC RULES, Parts 15 & 68.

MOUNTING AND WIRING

(Applicable To All Controls That Support Voice Modules)

General Information

Zone descriptors MUST be programmed, even if the system uses only fixed-word consoles. If this is not done, the Voice Module will annunciate zone numbers only, with no descriptors. In an existing installation where descriptors have already been programmed, all descriptors must be re-programmed (see *PROGRAMMING THE CONTROL* on page 6).

Mounting the Voice Module (All Controls)

Mount the Voice Module in the control cabinet if space is available, or on the side of the cabinet or adjacent to it. Pry off the Voice Module's cover prior to wiring.

- If mounted inside the cabinet with the control, use 2-faced adhesive tape to attach the module to the interior surface of the cabinet, or hang on two screws. *Do not mount on the cabinet door or attempt to attach it to the PC board.* The Voice Module's cover can be left off if the module is mounted within the cabinet.
- To mount the Voice Module outside the cabinet, use the screw holes at the rear of the Voice Module, which can be mounted horizontally or vertically (2-faced adhesive tape may be used in place of screws, if preferred). Wires can be brought out from the side or back (use the round breakout on the back). When the Voice Module's wiring is completed (as indicated below), replace the module's cover if it is installed outside the control cabinet (with label affixed, as indicated next).
- Affix the supplied connections label to the inside of the Voice Module's cover if the cover is to be used. Otherwise, affix the label to the inside of the control cabinet's door.

Wiring Connections

1. Make 12V (+), Ground (–), Data in, and Data out connections from the Voice Module to the control, using the connector cable supplied (see Figure 1), as follows:

Color Lead		Terminal On Control*
GREEN	to	DATA IN
BLACK	to	AUX GROUND (**–**)
RED	to	AUX **+**
YELLOW	to	DATA OUT

* These are the same terminals as those used for console wires.

2. Insert the keyed connector at the other end of the above leads into the mating header on the Voice Module. See Figure 1 for proper connector orientation.
3. Connect terminals 1 through 5 on the Voice Module as indicated in Figure 1 and Table 1. Use an RJ31X jack (CA38A in Canada) with a direct-connect cord and make all connections exactly as shown. If the leads on the direct-connect cord are too short to reach their assigned terminals, splice additional wires to them, as required.

IMPORTANT:

Some controls may require different wiring connections than those indicated in Table 1 and shown in Figure 1, depending on whether certain other devices that connect to the telephone lines are also being used (for example, an Audio Alarm Verification unit). Refer to the Voice Module section in the control's installation instructions for information on any wiring variations that might be necessary in such cases.

Caller ID Units

If the telephone system on the premises includes a Caller ID unit, connect the unit directly to the "Handset" terminals on the control, as shown in Figure 1.

Special Wiring Notes:

1. Wire the Voice Module exactly as shown here, unless the control's installation instructions indicate otherwise (due to the use of other phone-connected devices (such as an Audio Alarm .Verification unit).
2. You MUST make a connection to the incoming Telco line via a RJ31X jack (CA38A in Canada) and direct-connect cord, as shown in Figure 1, even if the system is not connected to a central station. **The Voice Module will not function if this is not done.**
3. If Touch-tones are not present following phone access to the security system *via an on-premises phone*, try reversing the pair of wires connected to terminals 3 & 4 on the Voice Module, **and** the pair of wires connected to the "Handset" TIP & RING terminals on the control.

TABLE 1. WIRING CONNECTIONS

Voice Module Terminal	Connects to:
1. Phone In (Tip)	"Handset" TIP terminal on control.
2. Phone In (Ring)	"Handset" RING terminal on control.
3. Phone Out (Tip)	BROWN lead from direct-connect cord.
4. Phone Out (Ring)	GRAY lead from direct-connect cord.
5. Ground	Earth ground terminal on control.
6. Audio Out 1	Future use
7. Audio Out 1	Future use

Note: The 2-pin header position on the Module is unused.

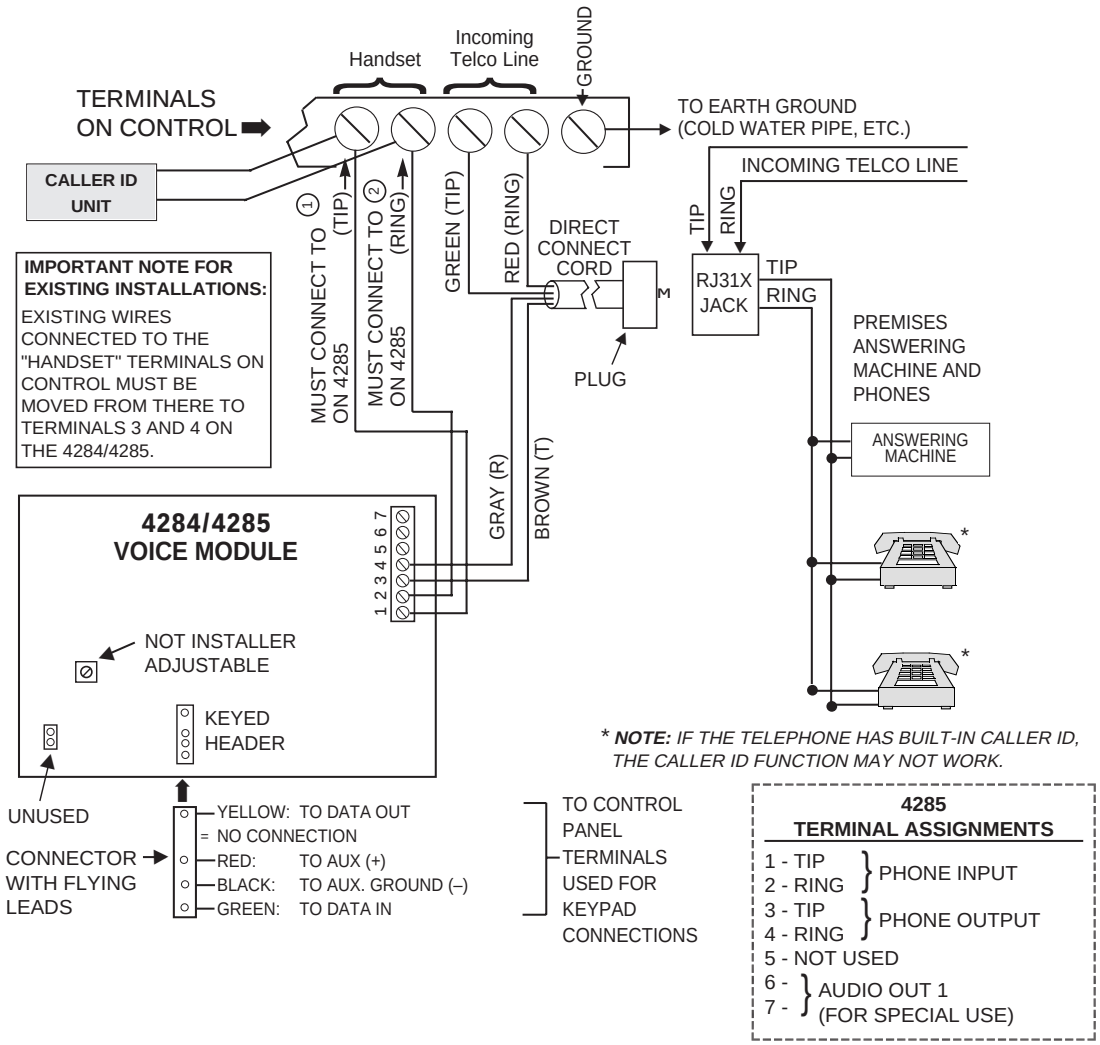


Figure 1. 4284/4285 VOICE MODULE WIRING CONNECTIONS

PROGRAMMING THE CONTROL

Programming The Control For Voice Module Usage

It is important that all fields related to the operation of the Voice Module be properly programmed. These include entries for selection of the 2-digit phone code and, in some cases, entries for Voice Module supervision. Refer to the control's programming section for the Voice Module.

Note: The Voice Module is permanently set to device address 4. For control panels that require device programming, be sure to program device address 4 for a Voice Module. See the control panel's Installation Instructions for details.

Programming Zone Descriptors

This Section Applies to Systems Using Fixed-Word or Alpha Consoles.

Systems with Alpha Consoles:

When using the 4284 Voice Module: Where possible, zone descriptors for Alpha console displays should be selected from those words listed in Table 2 on page 6.

When using the 4285 Voice Module: Select zone descriptors for Alpha console displays from those words listed in Table 3 on page 7.

Note:
In an existing installation where descriptors have already been programmed, ALL descriptors must be re-programmed to match those in the Voice Module's vocabulary.

The words listed in Tables 2 and 3 are those that are available in the Voice Module's own vocabulary and match many of the control panel's alpha words. By selecting these words for zone descriptions wherever possible, the words displayed on an Alpha console will match those annunciated by the Voice Module. Also, if the words programmed into the system for zone descriptors are not in the Voice Module's vocabulary, those words will be omitted during voice annunciation.

Use the procedure in the Control's Installation Instructions for programming zone descriptors.

Note: Plurals of words(s) and 's may be added to words in some controls when programming descriptors, but these cannot be annunciated by the 4284 Voice Module as zone descriptors.

Systems Using Only Fixed-Word Consoles:

Normally, systems with only fixed-word consoles do not require programming of zone descriptors. **However, when a Voice Module is used, descriptors must still be programmed, either via downloading or, alternatively, by connecting an Alpha console temporarily.** If this is not done, the Voice Module will be unable to annunciate a description of the zone(s) in alarm, trouble, etc. (the Voice Module will annunciate zone numbers only).

Programming Note

In an existing installation, we recommend that all programming data be uploaded to the central station, where the appropriate changes can be made to the existing programming. **This includes the re-programming of ALL zone descriptors.** The revised programming can then be downloaded to the installation, using the following Downloading software:

V–LINK® Downloading software, capable of supporting the 4284/4285 Voice Modules.

TABLE 2.
4284 ZONE DESCRIPTOR VOCABULARY

ALARM	DOWN	KITCHEN	REAR	0
BASEMENT	DOWNSTAIRS	LEFT	RIGHT	1
BATHROOM	EXIT	LIGHT	ROOM	2
BED	FIRE	LIVING	SMOKE	2ND
BEDROOM	FLOOR	LOWER	UP	3
CALL	FRONT	MEDICAL	UPPER	4
CENTRAL	GARAGE	PANIC	UPSTAIRS	5
DINING	HALL	PHONE	WINDOW	6
DOOR	HEAT	POWER	ZONE	7
				8
				9

TABLE 3.
4285 ZONE DESCRIPTOR VOCABULARY

Note: This vocabulary is not to be used for relay voice descriptors.
See the vocabulary listed in Table 4 when programming relay voice descriptors.

AIR	DEN	HALL	PANIC	UP	6th
ALARM	DETECTOR	HEAT	PATIO	UPPER	7
APARTMENT	DINING	INSIDE	PHONE	UPSTAIRS	7th
APPLIANCE	DOOR		POWER	UTILITY	8
AREA	DOWN	KITCHEN			8th
ATTIC	DOWNSTAIRS		REAR	WEST	9
	DRIVEWAY	LAUNDRY	RIGHT	WINDOW	9th
BABY	DUCT	LEFT	ROOM	WING	
BACK		LIBRARY			
BAR	EAST	LIGHT	'S†	ZONE	
BASEMENT	ELECTRIC	LIVING	SAFE		
BATHROOM	EQUIPMENT	LOADING	SERVICE	0	
BED	EXIT	LOWER	SHED	1	
BEDROOM			SHOP	1st	
BLOWER	FACTORY	MACHINE	SIDE	2	
BOILER	FATHER'S	MASTER	SMOKE	2nd	
BUILDING	FENCE	MEDICAL	SON'S	3	
BURNER	FIRE	MOTHER'S	SOUTH	3rd	
	FLOOR	MOTION	STATION	4	
CALL	FOYER	NORTH	STORAGE	4th	
CENTRAL	FRONT			5	
CLOSED	GARAGE	OFFICE	TEMPERATURE	5th	
COMPUTER	GAS	OPEN	TOOL	6	
	GLASS	OUTSIDE			

† 'S counts as one descriptor.

Programming Zone Descriptors When Using the 4285:

Some controls offer a quick method for programming zone descriptor words. This method simply requires that you press # followed by the index number that has been assigned to each word.

Since the index number that has been assigned to each word may vary from one control to another, Table 3 lists only the words that should be selected as zone descriptors when using the 4285. The index numbers for the words that you have selected should be obtained from the installation instructions for the control being used. The control's instructions will list all words (with their index numbers) available as alpha zone descriptors, among which will be those listed in Table 3 above.

Programming Relay Voice Descriptors (4285 Voice Module only)

With some controls, certain lights/appliances can be turned on and off via the telephone using the Relay Command Mode. Voice feedback is possible only with the 4285 Voice Module and with controls having this capability.

Table 4 lists the words available in the Relay Voice Descriptors Vocabulary. Refer to the control's programming section for the appropriate procedure for programming Relay Voice Descriptors, if available.

TABLE 4.
RELAY VOICE DESCRIPTORS VOCABULARY & CUSTOM WORD SUBSTITUTES
(4285 Voice Module Only)

The Word Index numbers shown below are used only when programming Relay Voice Descriptors in controls featuring Relay Activation with voice feedback, and for custom word substitutes. See the Control's Installation Instructions for procedure.

Word Index	Word	Word Index	Word	Word Index	Word	Word Index	Word
116	AIR	016	DOOR	143	MACHINE	156	STATION
255	ALARM	008	DOWN	144	MASTER	157	STORAGE
067	AND*	184	DOWNSTAIRS	014	MEDICAL	154	SUN*
117	APARTMENT	130	DRIVEWAY	212	MOTHER'S	062	SYSTEM*
161	APPLIANCE	131	DUCT	145	MOTION	158	TEMPERATURE
118	AREA	132	EAST	165	NO*	213	TOOL
119	ATTIC	066	ELECTRIC	146	NORTH	025	UP
120	BABY	133	EQUIPMENT	012	NOT*	187	UPPER
121	BACK	004	EXIT	011	OFF*	183	UPSTAIRS
122	BAR	134	FACTORY	147	OFFICE	185	UTILITY
021	BASEMENT	211	FATHER'S	058	ON*	215	WEST
051	BATHROOM	135	FENCE	148	OPEN	017	WINDOW
053	BATTERY*	040	FIRE	210	OUTSIDE	216	WING
092	BED	029	FLOOR	013	PANIC	002	ZONE
015	BEDROOM	137	FOYER	149	PARTITION*	069	0
123	BLOWER	087	FRONT	149	PATIO	070	1
124	BOILER	023	GARAGE	061	PHONE	136	1st
162	BRIGHT*	138	GAS	063	POWER	071	2
125	BUILDING	139	GLASS	166	PUMP*	056	2nd
027	BURNER	050	HALL	088	REAR	072	3
039	BURGLARY*	010	HEAT	028	RIGHT	159	3rd
009	CALL	209	INSIDE	018	ROOM	073	4
089	CENTRAL	022	KITCHEN	007	'S †	217	4th
054	CHIME*	140	LAUNDRY	164	SAFE	074	5
126	CLOSED	027	LEFT	150	SERVICE	218	5th
127	COMPUTER	141	LIBRARY	151	SHED	075	6
066	CONSOLE*	019	LIGHT	152	SHOP	219	6th
208	DAUGHTER'S*	030	LIVING	153	SIDE	076	7
052	DEN	142	LOADING	024	SMOKE	220	7th
128	DETECTOR	094	LOWER	223	SON'S	077	8
060	DEVICE*			155	SOUTH	221	8th
163	DIM*			006	STAIRS*	078	9
031	DINING					222	9th

***** These words not contained in the Alpha Vocabulary in Table 3.

† 'S counts as one descriptor.

BASIC OPERATING GUIDE

Phone Code

Phone access to the security system is obtained by entering an installer-programmed 2-digit "phone code", which can be any number from 1 through 9 followed by a ✶ or **#** .

Phone Access When On-Premises

1. **Pick up phone and enter the programmed phone code.** Annunciation of a system status report will automatically start.

   If the system is in alarm when the phone code is entered, a voice prompt will ask for entry of the system security code (**"ENTER SYSTEM CODE NOW"**)*.

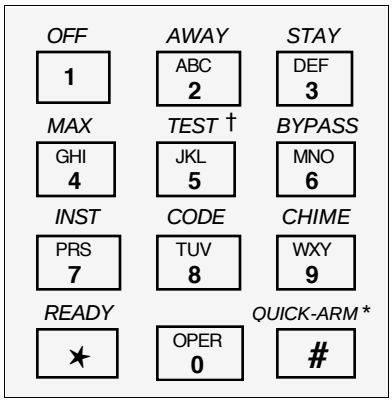
   In most systems, the alarm will shut off and a system status report will automatically start. The end of the status report may be signaled by a 2-tone chime sound. *To perform system commands, see section below.*

   * In some systems, there will not be a voice prompt to enter the system code. If not, key an OFF sequence (system code plus OFF) during, or just after the status report to turn alarm off.

Phone Access When Off-Premises

1. **Dial the premises phone number.**
   - *If the system replies directly* (even if the system is in alarm), 2 long tones will be heard, followed by a voice prompt **"HELLO, ENTER PHONE CODE NOW"**. Enter the 2-digit phone code.
   - *If the answering machine replies,* enter the 2-digit phone code during a pause at the beginning of, or during, the outgoing message. Do not enter the code after the machine starts recording.
   - *If a person answers,* tell that person to hold. Enter the 2-digit phone code within the first 20 seconds of the pick-up.
2. **When you have entered the 2-digit phone code,** a voice prompt will ask for entry of the 4-digit security code (**"ENTER SYSTEM CODE NOW"**).
3. **Enter the 4-digit system security code.** As a safety feature, there is a 3-try limit in which to enter each code (phone code and system code), after which time the call-in will be aborted. Also, if no keys are pressed for a period of 20 seconds, the call-in will be aborted.
4. **Annunciation of a system status report will start** if you have entered both codes correctly. The end of the status report may be signaled by a 2-tone chime sound. *To perform system commands, see below.*

TYPICAL TELEPHONE KEYPAD SHOWING EQUIVALENT COMMAND FUNCTIONS



Key		*Function*
1	=	OFF
2	=	AWAY
3	=	STAY
4	=	MAXIMUM
5	=	TEST †
6	=	BYPASS
7	=	INSTANT
8	=	CODE
9	=	CHIME
✶	=	READY

† ON-PREMISES PHONE ONLY.

*IF PROGRAMMED

Note:
Entering the programming mode and activating "PANIC" cannot be initiated from the telephone keypad.

Performing System Commands

During any pause in the status report, or immediately following it, key the desired command (except PANIC) via the keypad on the phone. Use the same key sequence indicated for commands in the security system's User's Manual.

Example: To arm "AWAY", enter the security code, then press key "**2**". If the command entry was successful, two "beeps" will be heard, followed by voice confirmation, e.g., **"ARMED AWAY, EXIT NOW"**

If you encounter any difficulty with the operation of the phone access system, refer to the TROUBLESHOOTING section.

A list of confirmation sounds and voice announcements that follow successful command entries is provided on the next page.

Confirmation Sounds & Voice Announcements After Command Entries

Command Function Performed	*Telephone Confirmation*	
	Sound	**Voice Announcement**
Armed AWAY	2 beeps	"ARMED AWAY, EXIT NOW"†
Armed MAXIMUM	2 beeps	"ARMED MAX, EXIT NOW"†
Armed STAY	3 beeps	"ARMED STAY, EXIT NOW"†
Armed INSTANT	3 beeps	"ARMED INSTANT, EXIT NOW"†
Disarmed	1 beep	"DISARMED, (NOT) READY TO ARM"
Zone Bypass	1 beep	"BYPASS, (descriptor), ZONE #
Enter CHIME mode	1 beep	"CHIME (ON) or (OFF)"
Enter/Erase temporary User code*	1 beep	No voice announcement

† If desired, you may exit during the Exit Delay period.

* This function cannot be performed via the telephone with some controls – check the control's Installation Instructions.

For those commands where the Voice Module's vocabulary does not permit annunciation (e.g., TEST, etc.) a beep will be heard (if appropriate) following a successful entry and the words **"SEE SYSTEM CONSOLE"** will be annunciated.

Turning Remote Phone Access On Or Off

Remote telephone access to the security system can be toggled on and off via an on-premises phone (or via a wired console) by keying the following:

Master 4-digit security code + [#] + [9] + [1]

The voice response will be: **CALL-IN TO SYSTEM [ON]** or **[OFF],** with 2 beeps when turned on, and 1 beep when turned off.

Note: Remote Access can be turned OFF from an off-premises phone, but cannot be turned ON.

Caution: If Remote Phone Access has been turned off automatically as a result of tampering (such as would be caused by improper keying of codes on a call-in), and this occurs repeatedly over a short space of time, the user should be instructed NOT to turn Remote Phone Access on again for a period of time if the improper keying was not caused by the user or a family member. **An unauthorized person may be attempting to access the security system from outside.**

Installations Where The Telephone System Includes An Answering Machine

When accessing the system via an outside phone when the installation includes an answering machine, enter the 2-digit phone code during the first 20 seconds of the OUTGOING message on the answering machine (preferably during a pause in the outgoing message), **before it begins recording an incoming message.**

The reason for entry of the phone code during a pause is that touch tones (produced by entry of the 2-digit phone code) might not be received by the security system while an answering machine's outgoing voice message is on the phone line. Also, entering the 2-digit phone code *before* the answering machine starts recording will prevent the phone code tones from being recorded, and later played back if the answering machine has a remote message playback feature.

If there is difficulty obtaining phone access when trying to use this procedure, instruct the end user to re-record the outgoing message on the answering machine, but leave a 2-second pause at its beginning (for entry of phone code on an outside call-in).

Example: (2-second pause) This is the Smith residence. I can't come to the phone just now. Please leave a message after the tone.

End User Relay Command Mode When Using The 4285 Voice Module

For information on whether operation of the end-user Relay Command mode via the telephone is possible with the control being used, **refer the control's Installation Instructions (and below)**. Voice feedback is possible only with the 4285 Voice Module, and only with certain controls (see below).

The following is a summary of the different methods available for manual operation of relays and/or power line carrier devices via the phone in various Ademco systems.

VISTA 40, VISTA 50.

These control panels use the interactive "#70 Relay Command Mode" to manually turn devices on or off. Refer to their installation manuals for the appropriate programming of relays and/or power line carrier devices. The procedure for activating these devices via the phone is contained in the 4284/4285 User's Guide.

VISTA 20.

This control panel can use non-voice* response relay commands to manually turn devices on or off, as follows:

4-digit system code + # + 7 + device No. will *turn on* the device.

4-digit system code + # + 8 + device No. will *turn off* the device.

Refer to the VISTA 20 installation manual for the appropriate programming of relays and/or power line carrier devices.

VISTA 10, Via 30 +.

These control panels can use non-voice* response relay commands to manually turn devices on or off. However, field *80 (Output Relay programming) in these controls must include System Operation choices **34** (Code + # + 7) and/or **35** (Code + # + 8) for **ZT** (Zone Type/System Operation) for a selected relay.

When so programmed, the relay for which System Operation choice 34 or 35 was selected can be manually activated or de-activated by keying:

Code + # + 7 or **Code + # + 8**.

* These controls will not provide voice feedback and there will be no voice confirmation over the phone that the command has been executed. However, wired consoles in the security system will "beep" for confirmation.

CHANGES TO 4140XMP CONTROL WHEN USING THE 4284 VOICE MODULE
(Disregard this section for other controls)

General Information

The following is a summary of the changes that must be made to the 4140XMP to enable it to support the 4284 Voice Module (do not use the 4285).

1. Replacement of existing EPROM in the 4140XMP with an "upgrade" EPROM that has been supplied as part of the 4284KT kit.
2. Addressable Consoles MUST be used with the system (but set to the non-addressable mode – Address 31).
3. The 4280 RF Receiver can no longer be supported (but the 4281 series of RF Receivers are still supported).
4. Minor changes to certain programming fields, and one addition (field 1*66). A revised programming form highlighting the programming changes for the 4140XMP has been provided with this manual.
5. Zone descriptors MUST be programmed (using Table 2), even if the system uses only fixed-word consoles. If this is not done, the Voice Module will annunciate zone numbers only, with no descriptors.

   Note: In an existing installation where the descriptors have already been programmed, ALL DESCRIPTORS MUST BE RE-PROGRAMMED, following the instructions contained in the section of this manual entitled *Programming Zone Descriptors.*

EPROM Replacement on the 4140XMP PC Board

The Voice Module will not function with the 4140XMP control unless you "upgrade" the existing EPROM in the 4140XMP with the new EPROM supplied. To replace the existing EPROM, follow the instructions below.

Note: The control's existing programming and user codes will NOT be lost during this procedure! However, in an existing installation where the descriptors have already been programmed, the descriptors must be re-programmed, following the instructions contained in the section of this manual entitled *Programming Zone Descriptors.*

1. Remove **all** power (AC transformer and battery) from the 4140XMP control.
2. To guard against any "static discharge" damage when replacing the EPROM, briefly touch the ground terminal (terminal 30) in the 4140XMP control to discharge any static buildup.

   Caution: *Avoid standing on a carpeted floor when performing this upgrade – this will increase the possibility of static buildup.*
3. Referring to Figure 2 on next page, locate the existing 4140XMP EPROM (indicated by the large heavy arrows in Figure 2).
4. Using a pan-head screwdriver or similar device, carefully remove the existing EPROM by slowly prying the EPROM out of its PC board socket (see Detail A). *HINT: Insert the screwdriver between the socket and the EPROM and slowly pry the EPROM out by alternating from one side of the EPROM to the other.*
5. **Carefully** insert the new EPROM into the empty socket. Be sure to orient the EPROM with the "notch" pointing toward the left, as shown in Figure 2. Use care to avoid bending or breaking any of the EPROM legs while inserting it.
6. Restore power to the control (AC and battery).

Programming The 4140XMP Security Control

When the 4140XMP (with upgraded EPROM installed) is used in conjunction with a Voice Module, some minor programming changes take place. These changes are clearly indicated in the revised 4140XMP blank programming form supplied. Fields affected are as follows:

Fields: ***44** (modified note regarding the 4284).
***74** (modified, 7th location is now for 4284 supervision).
1*08 (modified, 7th location is now for 4284 supervision).
1*32 (no longer used).
1*66 (new field, for selection of 2-digit Phone Code).

Refer back to page 4 for mounting, wiring, programming zone descriptors, etc.

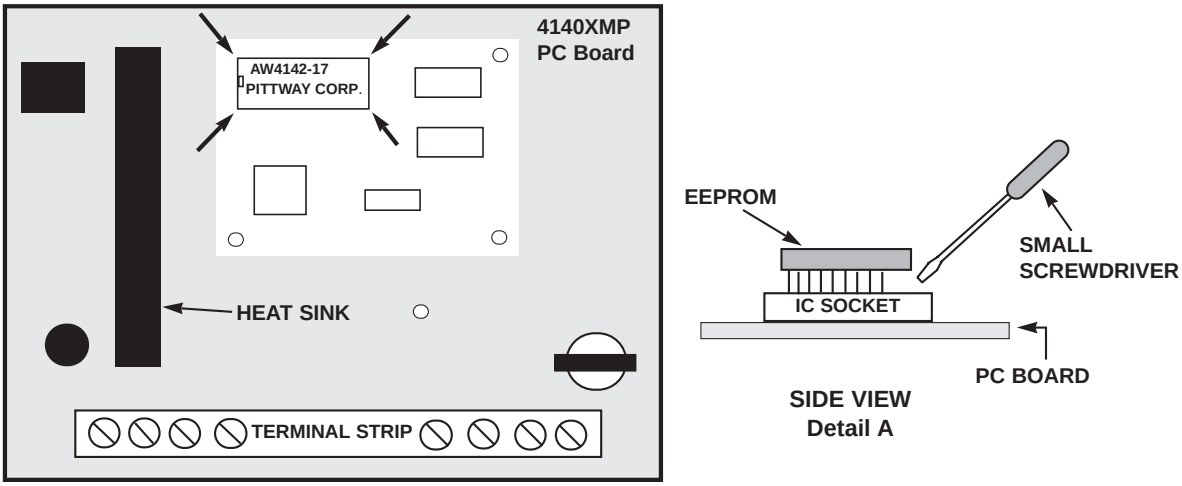


Figure 2. INSTALLING UPGRADED EPROM ON 4140XMP PC BOARD

TROUBLESHOOTING (4284/4285)

"87" Displayed on Console and Rapid Beeping Occurs (and/or the system cannot be accessed by phone).

- The Voice Module is not responding to the control panel. Check wiring of Voice Module to control (Data In, Data Out, Aux [**+**], and Aux [**–**] wiring).

Console Produces Erratic Displays and Beeps.

- Consoles used in system are non-addressable type. Only addressable consoles can be used. If using a 4140XMP or VIA30+ control, addressable consoles must be set to the non-addressable mode.

Security System Cannot Be Accessed via the Phone (on or off premises).

- The 2-digit Phone Code has not been programmed.
- 2nd digit of Phone Code (✶ or #) does not provide touch tones on phone in use. Select whichever of these digits that does. If neither does, that phone is not usable for phone access.

Security System Cannot Be Accessed via the Phone (from on premises).

- Entry of 2-digit phone code may be incorrect. Verify phone code and try again.
- Generally, the system cannot be accessed when the phone line is busy, such as when downloading is in progress, if engaged in a phone conversation (except during entry delay), or when the phone is ringing (always allow at least 10 seconds after the last ring before attempting phone access)
- The system cannot be accessed if the phone line is out of service.

Security System Cannot Be Accessed via the Phone (from off premises).

- Either the 2-digit phone code or the system security code may have been entered incorrectly. Verify both codes and try again.
- Remote access turned off. If so, turn on (from on-premises phone only) by entering 2-digit Phone Code to access system, then enter: Master security code + # + 9 + 1.

  Note: If turned off and TAMPER message is displayed, clear system first by keying an OFF sequence **twice.**

Remote Phone Access Keeps Turning Off Automatically.

- Improper keying (or attempted tampering) from an outside phone has automatically turned remote phone access off (the console will display a tamper message).

No Tones Produced By the Touch-tone Phone When Keys Are Pressed (on-premises phone).

- Phone is not Touch-tone capable. If switchable type, make sure phone is switched to TONE.
- It may be necessary to reverse wires connected to terminals 3 and 4 on Voice Module and "Handset" TIP and RING terminals on control (see section describing wiring connections for 4284/4285).

The System Has Been Accessed and Status Reports Annunciated, But Commands Cannot Be Executed.

- Key entries may have been too rapid – make key entries slowly and firmly.

- You may have keyed entries while the system was speaking. Make your key entries only during pauses in annunciations by the system.
- Security code entered may be incorrect.
- Certain command functions have restrictions. Entry to the programming mode and initiation of PANIC cannot be executed via the phone (see below). TEST and "Sniffer modes can be initiated from an on-premises phone only.

Cannot Initiate "Panic" Or Enter the Programming Mode via the Phone.

These functions cannot be initiated via a phone – only at the console.

Cannot Enter Temporary User Codes via the Phone

This function cannot be performed via the phone with some controls – only at the console. See the control's Installation Instructions for information.

Descriptions Of Zones Not Annunciated Along With Zone Numbers.

- Zone descriptors have not been programmed (necessary even if system uses only fixed-word consoles).
- Words selected for descriptors are in the control panel's vocabulary of words but are not in the Voice Module's vocabulary (see "Programming Zone Descriptors").

In a 4140XMP Installation, Descriptions of Zones Annunciated Are Not Correct.

- In an existing 4140XMP installation, *all zone descriptors must be re-programmed* when the Voice Module is installed.

"See System Console" Message Is Annunciated.

This message will be annunciated during any of the following conditions:

1. When the system is in the TEST mode.
2. When the system has been set to the House or Transmitter ID "Sniffer" modes.
3. Four or more unsuccessful attempts have been made to access the system from off-premises, which has caused Remote Phone Access to be turned off automatically.
4. Low battery in an RF transmitter.
5. Modem connection with PC downloader (downloading in progress).
6. There has been a failure of the system to communicate with the central alarm monitoring station.
7. There has been a 4281 or 5881 Receiver Set Up Error (more RF zones have been programmed than can be accommodated by the type of receiver used).

When the "**See System Console"** message is annunciated under the conditions listed in 1 through 7 previously, the console will provide the display normally expected under those particular conditions. For example:

1. ***If System is in the TEST mode*.** In this mode, a fixed-word console will only display the normal "System Disarmed" message, while an Alpha console will display "Test in Progress", unless a zone is faulted, in which case the zone number (and the description if it is an Alpha console) of the open zone will be displayed.
2. ***If System is in the House or Transmitter ID "Sniffer" mode.*** Any display that appears is used to identify ID numbers for specific identification purposes in this special mode (used only during installation of the system).
3. ***If "Tampering" has caused "CALL-IN TO SYSTEM OFF, SEE SYSTEM CONSOLE" message to be annunciated.*** If the system is in the disarmed mode, an Alpha console will display "CALL-IN TAMPER" and a fixed-word console will display "CI". However, if the system is in the armed mode, only the normal "System Armed" message will be displayed.
4. ***If there is a low battery in an RF Transmitter.*** If the system is in the disarmed state, a "Low Battery" message will be displayed. If the system is in the armed state, this display message may not appear until the system is disarmed (depending on how the system was programmed).
5. ***If Downloading is in progress.*** During this period, the Alpha console will display "MODEM COMM" and the fixed-word console will display "CC".
6. ***If there is failure of communication with the central alarm monitoring station.*** If the system has attempted to send a report to the central alarm monitoring station and has failed, the Alpha console will display "COMM FAILURE" and the Fixed-word console will display "FC".
7. ***If there is incorrect programming of RF zones for the 4281 or 5881 Receiver.*** If more RF zones have been programmed than can be accommodated by the receiver in use, an Alpha console will display "RCVR Set-Up Error", and a Fixed-word console will display "E8".

In The Event Of Trouble With Regular Telephone Service

In the event of trouble with regular telephone service, disconnect the security system from the phone lines by removing the plug from the RJ31X (CA38A in Canada) wall jack. We recommend that you demonstrate removal of this plug to the user, following installation of the system.

Do not disconnect the phone connection inside the Control or the Voice Module. Doing so will result in the loss of regular phone service.

If the regular phone works correctly after the plug has been disconnected from the RJ31X (CA38A in Canada) wall jack, the Control Panel or the Voice Module has a problem and the faulty unit should be returned for repair. If upon disconnection of the plug, there is still a problem on the line, the telephone company should be notified that they have a problem and that prompt repair service is needed.

IMPORTANT: If the phone service is at fault in the test above, re-insert the plug immediately; if the security system is at fault, re-insert the plug as soon as the security system is repaired, since the security system relies on this connection for communication with the alarm monitoring station.

The user may not under any circumstances (in or out of warranty) attempt any service or repairs to the system. It must be returned to the factory or an authorized service agency for all repairs.

FEDERAL COMMUNICATIONS COMMISSION (FCC) PART 15 STATEMENT

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for your information:

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- If using an indoor antenna, have a quality outdoor antenna installed.
- Reorient the receiving antenna until interference is reduced or eliminated.
- Move the receiver away from the security control.
- Move the antenna leads away from any wire runs to the security control.
- Plug the security control into a different outlet so that it and the receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions.

The user or installer may find the following booklet prepared by the Federal Communications Commission helpful: "Interference Handbook". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402.

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

FEDERAL COMMUNICATIONS COMMISSION (FCC) PART 68 STATEMENT

This equipment complies with Part 68 of the FCC rules. On the front cover of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This equipment uses the following jacks:

An RJ31X is used to connect this equipment to the telephone network.

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

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

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

If trouble is experienced with this equipment, please contact the manufacturer for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

There are no user serviceable components in this product, and all necessary repairs must be made by the manufacturer. Other repair methods may invalidate the FCC registration on this product.

This equipment cannot be used on telephone company-provided coin service. Connection to Party Line Service is subject to state tariffs.

This equipment is hearing-aid compatible.

When programming or making test calls to emergency numbers, briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours; such as early morning or late evening.

CANADIAN DEPARTMENT OF COMMUNICATIONS (DOC) STATEMENT

NOTICE

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

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

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

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100.

AVIS

L'étiquette du ministrère des Communications du Canada identifie le matériel homologué Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Le ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthod acceptée de raccordement. Dans certains cas, les fils intérieurs de l'entreprise utilisés pour un service individuel a ligne unique peuvent être prolongés au moyen d'un dispositif homologué de raccordement (cordon prolongateur téléphonique interne). L'abonne ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empèchent pas la dégradation du service par certaines situations. Actuellement, les enterprises de télécommunication ne permettent pas que l'on raccorde leur matériel aux jacks d'abonnés, sauf dans les cas precis prévus par les tarrifs particuliers de ces entreprises.

Les réparations de matériel homologué doivent être effectuées pas un centre d'entretien canadien authorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'energie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électrician, selon le cas.

L'indice de charge (IC) assigné à chaque dispositif terminal pour éviter toute surcharge indique le pourcentage de la charge totale qui peut être raccordeé à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle combinaison de dispositifs, pourvu que la somme des indices de charge de l'ensemble des dispositifs ne dépasse pas 100.

NOTES

ADEMCO 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 products to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for 18 months from the date stamp control on the product or, for products not having an Ademco date stamp, for 12 months from date of original purchase unless the installation instructions or catalog sets forth a shorter period, in which case the shorter period shall apply. Seller's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor, any product which is proved not in compliance with Seller's specifications or proves defective in materials or workmanship under normal use and service. Seller shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than Ademco factory service. For warranty service, return product transportation prepaid, to Ademco Factory Service, 165 Eileen Way, Syosset, New York 11791.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. 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.

Seller does not represent that the products it sells may not be compromised or circumvented; that the products will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the products will in all cases provide adequate warning or protection. Customer 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 replaces any previous warranties and is the only warranty made by Seller on this product. No increase or alteration, written or verbal, of the obligations of this Limited Warranty is authorized.

SEE THE CONTROL PANEL'S INSTALLATION INSTRUCTIONS FOR COMPLETE INFORMATION REGARDING THE LIMITATIONS OF THE ENTIRE SECURITY SYSTEM.

ALARM DEVICE MANUFACTURING CO.
A DIVISION OF PITTWAY CORPORATION
165 Eileen Way, Syosset, New York 11791

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End User Relay Command Mode

For information on whether operation of the end-user Relay Command mode via the telephone is possible with the control being used, refer the control's Installation Instructions (and below). Voice feedback is possible only with the 4285 Voice Module, and only with certain controls.

The following is a summary of the different methods available for manual operation of relays and/or power line carrier devices via the phone in various Ademco systems. These end user functions are discussed in the 4284/4285 User's Guide.

VISTA 40, VISTA 50.

These control panels use the interactive "#70 Relay Command Mode" to manually turn devices on or off.

VISTA 20.

This control panel uses non-voice response relay commands to manually turn devices on or off, as follows:

4-digit system code + # + 7 + device No. will *turn on* the device.

4-digit system code + # + 8 + device No. will *turn off* the device.

VISTA 10, Via 30 +.

These control panels can use non-voice response relay commands to manually turn devices on or off. However, field ✶80 (Output Relay programming) must include System Operation choices **34** (Code + # + 7) and/or **35** (Code + # + 8) for **ZT** (Zone Type/System Operation) for a selected relay.

When so programmed, the relay for which System Operation choice 34 or 35 was selected can be manually activated or de-activated by keying:

Code + # + 7 or **Code + # + 8**.