

ALARM DEVICE MANUFACTURING CO.

A DIVISION OF PITTWAY CORPORATION

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No. 5330 ALPHA CONSOLE

INSTALLATION INSTRUCTIONS

- MARGIN LINES INDICATE PRINCIPAL CHANGES IN THIS ISSUE —

GENERAL INFORMATION

The Ademco No. 5330 Alpha Console is a microprocessor based remote keypad console intended for use with any of the following Ademco security alarm systems:

No. 4152/4153 Vector Point Protection Systems 5600/5700 Alert Wireless Alarm System No. 4180-12/4180EC Protection System No. 4160-12 Protection System Vista Protection System

This document provides installation instructions and installer programming procedures. For information regarding usage with specific security systems, refer to the No. 5330 User's Manual for the system in use. The No. 5330 Alpha Console serves as the user's interface to the security system and is functionally identical to each of the listed systems' remote keypad consoles, with several major differences. First, the No. 5330 features a 32 character English language alphanumeric display (two lines of 16 characters), as opposed to the one or two-digit numeric display/LED indicator combination found on the standard keypad consoles. Thus, triggered zones or protection points are displayed descriptively (e.g. BOB'S BDRM WNDOW) rather than by numerical codes. In addition, the No. 5330 features a backlit keypad which is used for entering system commands, and can be used to create a custom installer or end-user message that is displayed when the system is in the "ready to arm" state.

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INSTALLATION

The No. 5330 Alpha Console can be surface mounted or flush mounted. Refer to the "Console Wiring" instructions in the Control/Communicator manual for electrical requirements. Power to the Alpha Console is supplied by the Control/Communicator.

SURFACE MOUNTING

- Select a location for the console that is convenient for entering commands and for receiving the various visual and audible system signals. Take the location's lighting and Console height into consideration. Too bright an area may make viewing with backlighting difficult, and the Console should be mounted at a height that requires the User to look downward when viewing the LCD display.
- 2. Run wiring between the Console and the Control/Communicator. Use a 4-wire run as would normally be used with the specific system's keypad console. Terminate the wire run with the connector assembly provided (Ademco No. SA5330-2) using the wiring table that follows. Additional Consoles may be connected in parallel, with all consoles connected at the control panel. DO NOT DAISY CHAIN CONSOLES! For runs of less than 100 feet, #22 conductors may be used. For longer runs, the wire size to be used depends upon the distance required. Use the following table to determine the correct wire size.

DISTANCE	WIRE SIZE
Up to 100'(30m)	#22(0.65 mmO.D.)
100' to 200'(60m)	#20(0.8 mmO.D.)
200' to 300'(90m)	#18(1 mmO.D.)

The following chart should be used when wiring the No. 5330:

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5330	ALERT	VECTOR	4180	4160	4130XM	VISTA
(∞lor)	TB	TB1	TB2	TB	5130XM	4140XM
Red	19	14	20	20	red/black	TB2-7
Yellow	4	15	19	17	Yellow	TB1-9
Green	8	16	18	15	Green	TB1-10
Black	18	17	16	16	Black	TB2-6

- 3. Remove the mounting plate from the back of the Console by inserting a small screwdriver blade under the locking tab (located in the center of the back of the Console, between the Console and the plate), twisting gently, and sliding the Console upward. Using the mounting template (N3325), drill the four mounting screw holes, and the connector access hole. Route the wiring in the wall through the access hole and mount the Console mounting plate in place.
- 4. Place the U-shaped wire jumper, located in the receptacle opening, to the proper position for the system in use:

6V = 5620/5720, 4160-12, 4180EC/4180-12 12V = 5800, Vector 2000, Vector 3000, and Vista

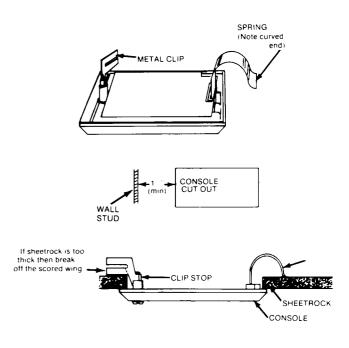
IMPORTANT! Failure to position jumper properly when using 6V operation will result in the Console appearing to be faulty and inoperative. The system defaults to 12V mode if jumper is not used.

5. Plug the connector into the receptacle on the back of the Console, making sure that the connector locks in place. Push the excess wire back into the wall, position the Console so the "L" shaped cutouts on the back align with the tabs on the mounting plate, and lower the Console into place until the locking tab clicks. To remove the Console from the mounting plate, repeat the first half of step 3.

FLUSH MOUNTING

(Before proceeding, perform steps 1, 2 & 4 of "SURFACE MOUNTING" procedure.)

- Locate the "Recess Mounting" template between wall studs, no less than 1-1/2" from either stud. Drill 3/8" pilot holes in all four corners and cutout 7-3/16" x 3-7/8" opening.
- 2. Open the information compartment door and remove the card inside. Remove the screw that secures the back cover (cover may be discarded). Insert the screw and attach the metal clip as shown. Turn the screw until the clip enters the guide post about 1/8 inch. Insert the straight end of the spring into the slot on the right side of the Console. Plug the connector into the Console receptacle and push excess wire back into wall.
- 3. With the metal clip in vertical position, mount the console by hooking the spring behind the right edge of the opening so that it holds the console against the inside of the wall. Turn the screw of the metal clip. The clip will turn until it hits the clip stop and then move forward. Continue turning the screw until the console is snug against the wall. Make sure the console is straight, turn the screw and tighten the metal clip. DO NOT OVER TIGHTEN!
- 4. Replace the card in the information compartment.



GRAPHIC OVERLAYS

The No. 5330 includes a package of graphic labels which identify the functions of the keys for the system in use. The appropriate label must be placed beneath the clear plastic keypad cover before turning the Console over to the user.

- Remove the clear plastic keypad cover from the keypad by inserting the tip
 of a small, flat-blade screwdriver in the cutouts located on the right side of
 the Console and twisting gently. When the locking tabs are released, lift
 the cover up and away.
- Select the proper graphic label by matching the number or name printed on the end of the label to the system in use as follows:

Vector/Vista System: VECTOR 4160 System: 4160 4180 System: 4180

Alert Systems: ALERT

- Place the label over the keypad (cutouts align over keys).
- 4. Replace the clear plastic keypad cover by inserting the tabs on the flat end of the cover into the slots provided on the Console, and pressing down on the curved end until the locking tabs snap into place.

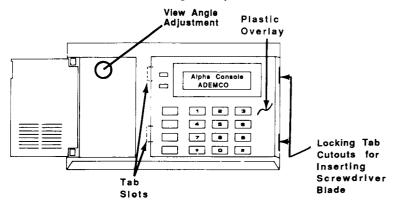
POWERING THE CONSOLE

The Alpha Console is powered by either 6VDC or 12 VDC, depending on the Control/Communicator to which it is connected. See step 4 of the SURFACE MOUNTING instructions for proper Console power jumper placement. The Console is activated when power is applied to the Control/Communicator.

ADJUSTING THE VIEWING ANGLE

The viewing angle of the display window can be adjusted to provide optimum viewability for the height at which the Console is mounted.

- When the Console has been mounted, open the compartment door and locate the viewing angle adjustment screw (recessed in the small hole near top of compartment).
- Using a small, flat-blade screwdriver, turn the adjustment screw to the left or right until optimum viewing is achieved. Be sure to take the height of the users into account when making this adjustment.



INSTALLER'S DIRECT ACCESS PROGRAMMING MODE

This mode is used by the installer when programming the Alpha Console to:

- Select the system to which the console is connected.
- Enter English language descriptors for each protection point or zone.
- Assign an Installers Direct Access code, which prevents unauthorized access to this mode of operation.
- Enter an Installation company or end user customized message.
- Perform default initialization.

The Alpha Console can also be used to program other Alpha Consoles with the above information, and can display the software version number installed, which is useful when discussing service questions with the factory.

The Installer's D. A. mode is NOT used to program the control options, which must be done before turning the system over to the user. To program the system options, return the Alpha Console to Normal mode and follow the programming procedures given in the control's Installation Instructions.

To enter the Installer's Direct Access Mode, press [*/1+5330+#/3] (slash marks mean press these two keys simultaneously). Code "5330" is the factory default installer's code, and can be changed by the installer, if desired. Be sure to enter the correct code when entering the Installer's Direct Access Mode.

NOTE: Place the Installer's Keypad Overlay card (provided) over the keypad to show the functions of the keys when using the Installer's D. A. Mode.

When Installer's mode is entered, the following will be displayed:

Installer's D.A. Pg Dn/Pg Up

To return to Normal Mode, press [Shift/Pg Up] when this message is displayed. To display this message from anywhere in the subsequent menus, hold the [Shift/Pg Up] keys down until the message is displayed.

It is also possible to get into the Installer's Direct Access Mode without the code number by simply pressing [*/1] within 90 seconds of system power up. This method is useful in the event that the code is accidentally lost. To display the current code, select the "Installer's Code" function described in the following sections.

The following sections describe the functions of the keypad and the programming procedures required when installing the No. 5330 Alpha Console.



KEYPAD FUNCTIONS DURING PROGRAMMING

(Refer to the Installer's Keypad Overlay N3702, which should be placed over the keypad during programming.)

Numerical Keys: Each numerical key represents one of four different characters, and is used to enter descriptors for each protection point. Each time a key is pressed, a character represented by that key will be displayed. When the desired character appears, press the right arrow key to move the cursor one space to the right. Enter each subsequent character (up to 16 per line) in the same manner. Each key's characters can also be displayed sequentially by holding that key down. To enter a character, simply release the key when the desired character appears. In this mode, the cursor automatically moves one space to the right when a key is released.

Shift Key: Performs the functions enclosed in parenthesis (Store, Delete, Prev, \leftarrow , Pg Up), when pressed simultaneously with the desired function key.

Arrow Key: Moves the cursor back and forth through the display, without erasing text. When the cursor reaches the end of the top line, it moves to the beginning of the bottom line. Pressing [---] moves the cursor to the right.

[Shift/ \rightarrow] moves the cursor to the left. To move the cursor more than one space at a time, simply hold the key(s) down, releasing it when the cursor is at the desired location. This is known as a "repeating" key.

Next/(Prev.) Key: Pressing [Next] displays the next menu in the same level. [Shift/Prev] displays the previous menu in the same level. ("Repeating" key)

PgDn/(PgUp) Key: Pressing [PgDn] selects the next level menu to be displayed. Pressing [Shift/PgUp] returns the display to the previous menu level. Holding the key(s) down will sequence through the various menu levels. Pressing [Shift/PgUp] while the "Installer's D.A." message is displayed will return the console to "Normal mode". ("Repeating" key)

Insert/(Delete) Key: Insert is used to make room for omitted characters, or to make a space between characters without erasing (i.e. omitted spaces between words). When pressed, the characters under and to the right of the cursor move one space to the right, but the cursor remains in its original position. [Shift/Delete] is used to erase the character under the cursor and will move the characters to the right of the cursor one space to the left. The cursor remains in its original position. ("Repeating" key)

Space/(Store) Key: Used to make a space between characters when entering text. When pressed, any character under the cursor is erased, and the cursor moves one space to the right. Holding this key down (Repeating key), will move the cursor to the right more than one space at a time, but will erase any characters it passes through. [Shift/Store] is used to store the Device Selection, Installer's Message, Installer's Code, and to perform the Default Initialization function. It is also used with the "Copy" and "Recall" functions.

PROGRAMMING OVERVIEW (See Diagram 2)

When programming, use the following keys:

PgDn: Selects the next lower menu, and accesses that menu's sub-menus or text windows.

PgUp: Exits the current menu or text window, and displays the next higher

Next: Displays the next menu or text window within the same programming

Prev: Displays the previously displayed menu or text window.

There are five primary menus which are described in the following paragraphs. Each of these primary menus contains sub-menus, which provide the actual programming functions. To display these menus, press the [PgDn] key when the "Installer's D.A." message is displayed. The Edit Mode Function will be displayed. Press the [Next] or [Shift/Prev] key to display each of the other functions.

Default Initialization: Used to clear all descriptors and return the Alpha Console to its factory default settings which are:

Device Selection = Vector Installer's Code = 5330 Installer's Message = "Alpha Console" Ademco

To select the default initialization settings, press [Shift/Store] when "Default Initialization" is displayed.

Revision Level: This display presents the software version number of the software installed in the Alpha Console, which is helpful when contacting the factory for service questions.

Edit Mode: Used to select the system to which the console is connected, enter protection point or zone descriptors, and enter the installer's message and installer's code. Refer to the "Edit Mode" procedures described later for additional information.

Data Load Mode: Used for programming remote consoles from a Master Alpha Console. Refer to the "DATA LOAD MODE" procedures described later for additional information.

Options: Used to select the keypad backlighting mode: either continuous or light for 5 minutes upon key depression. To select, press [PgDn] when "Options" is displayed, then enter "Y" for continuous backlighting or "N" for temporary backlighting. When entered, press [Store], and press [PgUp] to return to "Options" display. If "N" is selected, backlighting will only be on following any key depression (for 5 minutes), during entry/exit delay, during direct access mode, and whenever an alarm, trouble or descriptor is displayed. The system defaults to continuous backlighting if neither "Y" or "N" is selected, but will be temporary during AC power outages.

NOTE: The No. 5530 will sequentially display all programmed protection points when the command sequence [Security Code + "#" + "2"] is entered. The message takes the form shown, where *nn* is the protection point ID number and *description* is the programmed description for that ID number.

		_
Dmarommod		
Programmed	nn	
description		
description		

EDIT MODE PROCEDURES (See Diagrams 3 and 4)

Ed	t Mode	
Pg	Dn/Next/Pg Up	

To display the Edit Mode sub-menus, press the [PgDn] key when "Edit Mode" is displayed. To return to "Normal Mode", press [Shift/PgUp] twice. Pressing the [Next] or [Shift/Prev] key will display each of the following:

Device Selection	
Pg Dn/Next/Pg Up	
r g brintlener g op	

This function is used to select the system to which the Alpha Console is connected as follows:

- 1. Press [PgDn] when "Device Selection" is displayed.
- 2. Press the [Next] or [Shift/Prev] key until the correct system name is displayed (VECTOR, ALERT, 4160, 4180, VISTA).
- Press [Shift/Store] to select. The console will beep to acknowledge the command.
- 4. Press [Shift/PgUp] to return to "Edit Mode".

Descriptors Pg Dn/Next/Pg Up

This function has sub-menus to enter, display or copy English language descriptors of protection points/zones. To display these functions, press [PgDn] when "Descriptors" is displayed, then press the [Next] or [Shift/Prev] key until the desired menu appears.

Descriptor Edit Pg Dn/Next/Pg Up

Use this function to enter descriptors for each zone or protection point (0-99), and do the following:

- 1. Press [PgDn] when "Descriptor Edit" is displayed.
- "Descriptor 00:" will appear. Use the keypad to enter (or edit) the description
 of protection point 0 (up to 16 characters). Entries are saved automatically
 upon pressing [Next, Shift/Prev or Shift/PgUp], or when the next descriptor
 number is entered.
- Press the [Next] key to enter the next descriptor in numerical sequence. To
 enter descriptors in non-numerical sequence, move the cursor to the
 descriptor number and enter the number desired. Single digit numbers
 need a leading zero added to the entry (ex. 1 = 01).
- 4. To assign one descriptor's text to another descriptor without retyping, enter the descriptor number the text is to go. Move the cursor over the first digit of the descriptor number and press [Shift/] With the cursor over the "00", type the descriptor number from which the text is to come from, then press [Shift/Store]. The current number and the entered number now have the same descriptor. This feature is known as the "Recall" function and is similar to "Descriptor Copy" described on the next page.
- Press [Shift/PgUp] twice to return to "Edit Mode". Press [Shift/PgUp] once to access the other Descriptor function modes, by subsequent use of the [Next] key.

Descriptor Review
Pg Dn/Next/Pg Up

Press [PgDn] to display descriptors which are currently in use. Press the [Next/Prev] key to display each descriptor in numerical sequence. Note that only those descriptors which have been programmed will be displayed. To return to the "Edit Mode" display, press [Shift/PgUp] twice.

Descriptor Copy Pg Dn/Next/Pg Up

This function provides a means of entering the same word into many descriptor number entries, without having to type that word repeatedly (ex. the word "window" may appear in a number of descriptions).

- 1. Press [PgDn] when "Descriptor Copy" is displayed.
- Move the cursor to the second line and use the keypad to enter word(s) to be copied.
- 3. Move the cursor to the end of the first line and enter the first descriptor number to which the entered word is to be placed, and press [Shift/Store]. The console will beep to acknowledge the Copy Command.
- 4. Repeat step (3) for each descriptor number which is to contain the copied word(s), entering the appropriate descriptor number each time.
- 5. Press [Shift/PgUp] twice to return to "Edit Mode". Press once to display the other Descriptor functions (using the [Next/Prev] key).

Installer's Mesg Pg Dn/Next/Pg Up

This function allows the installer to enter the message which is displayed on the console when the system is ready and unarmed and in Normal Mode. The default message is:

Alpha Console

ADEMCO

- Press [PgDn] when "Installer's Mesg" is dispayed. The current Installer's message will appear
- 2. Use the keypad to enter the desired message, up to 2 lines, 16 characters per line.
- 3. Press [Shift/Store] to save the message. The Console will beep to acknowledge the saving of the message.
- 4. Press [Shift/PgUp] to return to "Edit Mode".

installer's Code Pg Dn/Next/Pg Up

This function allows the installer to change the code required to access the Installer's Direct Access Mode.

- Press [PgDn] when "Installer's Code" is displayed. The current Installer's code will appear.
- 2. Use keypad to enter the desired four-digit code.
- 3. Press [Shift/Store] to save code number. Console will beep to acknowledge the code.
- 4. Press [Shift/PgUp] to return to Edit Mode.

DATA LOAD MODE PROCEDURES (See Diagram 5)

These procedures describe a means of programming (downloading) No. 5330 Consoles from a master No. 5330 Console (which has been programmed via its keypad) and are useful for saving time and insuring that each Console is programmed identically when installing additional Consoles at a user's premises.

To display the various data load menus, press the [PgDn] key when "Data Load Mode" is displayed. To return to "Normal Mode", press [Shift/PgUp] twice.

PROGRAMMING FROM A NO. 5330 ALPHA CONSOLE

Follow these procedures when programming additional Consoles from a No. 5330 Console which has already been programmed. A Download Adapter Cable No. 5330AC is required. See connection diagram on SPECIFICATIONS page.

- Remove the programmed Console (source) from the wall and disconnect its cable. Connect the No. 5330AC adapter cable to the removed cable connector that is interfaced with the control system, to the source Console, and to the Console to be programmed (destination), as shown.
- At the source Console, enter the "Installer's D.A. Mode", press [Pg Dn], then press [Next] until "Data Load Mode" appears. Press [Pg Dn], then press [Next] until "Upload: Ext 5330" appears. Press [Pg Dn] to display "Ready to Upload".
- At the destination Console, enter the "Installer's D.A. Mode", press [Pg Dn], and press [Next] until "Data Load Mode" appears. Press [Pg Dn] ("Dnload: Ext 5330" appears). Press [PgDn] again to display "Ready for Dnload (frm 5330)/Pg Up".
- 4. Be sure that the destination Console displays the "Ready for download" message and that the source Console displays the "Ready for Upload" message. If not, check all connections and repeat steps 2 and 3. When both messages are displayed, press the source Console's [Shift/Store] key to begin programming. "Uploading to 5330" appears on the the source Console, and "Downloading from 5330" appears on the destination Console while programming is in progress.
- 5. When programming is complete, the message "Upload complete (to 5330)" appears on the source Console, and the message "Dnload complete (from 5330)" appears on the destination Console and a beep is heard. Return both Consoles to "Normal Mode" by repeatedly pressing [Shift/Pg Up] If the message "Dnload failure" appears on either Console, check all connections and repeat the programming procedure.
- 6. Repeat the previous procedures for each additional Console being installed. When all Consoles have been programmed, disconnect the adapter cable, plug the interface cable back into the source Console's connector, and remount the source Console. The destination Console(s) may now be installed.

FINAL CHECK BEFORE TURNING THE CONSOLE OVER TO THE USER

Before turning the Console over to the user, check all of the following:

	Wiring to the Console is correct and complete.
	The U-shaped jumper (back of Console) is properly placed for specific system operating voltage.
	Power to the Control/Communicator is applied.
	The viewing angle adjustment is such that the user can read the display easily.
	The proper graphic label is placed over the Console keypad.
	The proper control is selected using the "Device Selection" menu.
	All protection point or zone descriptors are entered using the "Descriptor Edit" menu.
	Installer's message (normal, ready-to-arm state message) is entered using the "Installer's Message" menu, if desired.
	Installer's code is entered (preventing unauthorized use of Programming Modes) using the "Installer's Code" menu, if desired.
	Alpha Console is operating in NORMAL Mode (the Installer's message, or other system status message should be displayed).
	Control/Communicator options have been programmed using the programming procedures given in the Control/Communicator Installation Instructions. Note that when using the Alpha Console to program system options, the programming data entries will continue to appear on the display until the display is filled. From then on the data will scroll through the LCD display, with the new entries appearing as the earlier entries disappear. This is unlike the Control/Communicator's standard Console, which displays only the current data being entered. Note also that if the keys are pressed too quickly while programming, false characters may be displayed, which can lead to confusion with regard to the data being programmed.

When all of the above has been performed, instruct the user in the Console's operation with regard to their specific security system. Be sure they understand all key entry procedures and the use of their security code. Show them the Console's self-help display feature, which displays brief instructions for the use of all the keypad commands. The self-help display appears when a command key is held down for longer than five seconds.

The Alpha Console can now be turned over to the user.

SPECIFICATIONS

PHYSICAL

Length: 7-3/4" (20.7cm) Width: 4-7/16" (11.3cm) Depth: 1-1/4" (3.2cm)

For Metal Decor Flush Mounting, Order:

5330MK-BS: Brushed Brass

5330MK-SS: Brushed Stainless Steel

ELECTRICAL

Input Voltage: 6 or 12VDC selectable

(supplied by Control/Communicator)

Current Drain: 80 mA normal standby

105 mA while display is backlit

The current drains listed are for both 6V and 12V operation.

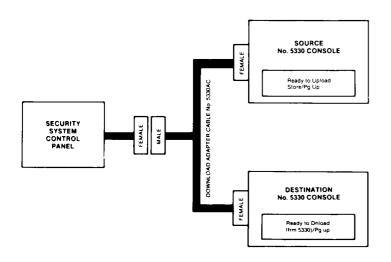
Connections: Data In = Yellow; Data Out = Green;

DC Power = Red; Ground = Black

(All references are from the console's perspective.

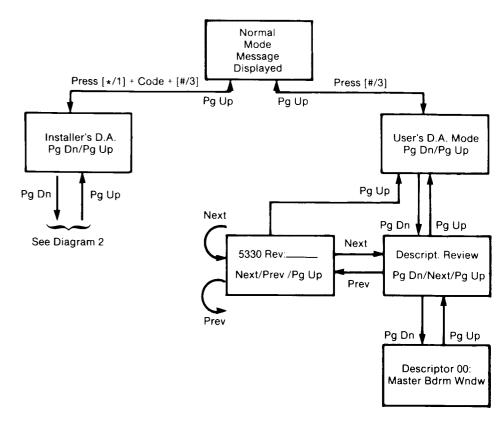
Refer to the Installation Instructions for connection information.)

ADAPTER CABLE CONNECTION DIAGRAM



Programming via Another No. 5330 Console

DIAGRAM 1: USER'S D.A. MODE MENUS



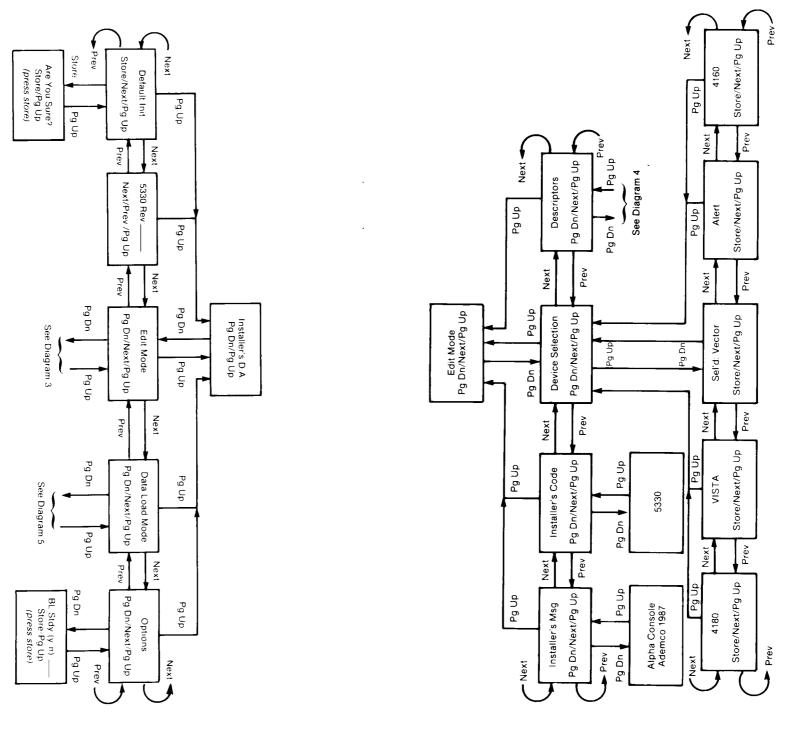
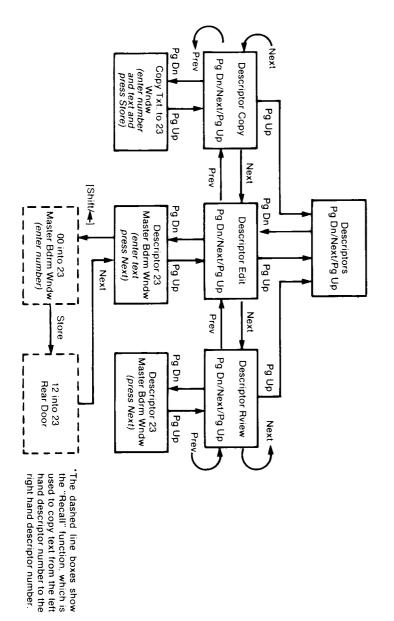


DIAGRAM 2: DEFAULT INITIALIZATION, REVISION LEVEL AND OPTIONS MENUS



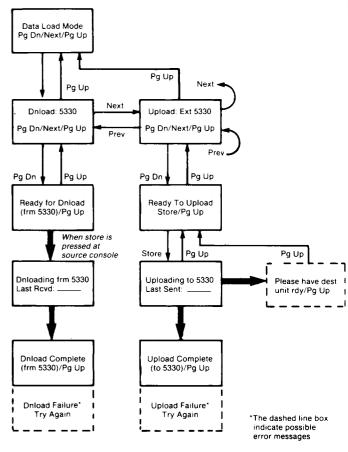


DIAGRAM 5: DATALOAD MENUS

FEDERAL COMMUNICATIONS COMMISSION (FCC) STATEMENT

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

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

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

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

The user or installer may find the following booklet prepared by the Federal Communications Commission helpful:

"Interference Handbook"

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. Stock No. 004-000-00450-7.

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

IN THE EVENT OF TELEPHONE OPERATIONAL PROBLEMS

In the event of telephone operational problems, disconnect the Control by removing the plug from the RJ31X wall jack. We recommend that you demonstrate disconnecting the phones on installation of the system. Do not disconnect the phone connection inside the Control Doing so will result in the loss of your phone lines. If the regular phone works correctly after the Control has been disconnected from the phone lines, The Controlhas a problem and should be returned for repair. If upon disconnection of the Control there is still a problem on the line, notify the telephone company that they have a problem and request prompt repair service. The user may not under any circumstances (in or out of warranty) attempt any service or repairs to the system. It must be returned to the factory or an authorized service agency for all repairs.

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. An alarm system, whether commercial or residential, is subject to compromise or failure to warn for a number of reasons. For example:

- Intruders may gain access through unprotected openings or have the technical sophistication to bypass an alarm sensor or disconnect an alarm warning device.
- Intrusion detectors (e.g. passive infrared detectors), smoke detectors, and many other sensing devices will not work without power. Battery operated devices will not work without batteries, with dead batteries, or if the batteries are not put in properly. Devices powered solely by AC will not work if their AC power supply is cut off for any reason, however briefly.
- Signals sent by wireless transmitters may be blocked or reflected by metal before they reach the alarm receiver. Even if the signal path has been recently checked during a weekly test, blockage can occur if a metal object is moved into the path.
- A user may not be able to reach a panic or emergency button quickly enough.
- While smoke detectors have played a key role in reducing residential fire deaths in the United States, they may not activate or provide early warning for a variety of reasons in as many as 35% of all fires, according to data published by the Federal Emergency Management Agency, Some of the reasons smoke detectors used in conjunction with this System may not work are as follows. Smoke detectors may have been improperly installed and positioned. Smoke detectors may not sense fires that start where smoke cannot reach the detectors, such as in chimneys, in walls, or roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level of a residence or building. A second floor detector. for example, may not sense a first floor or basement fire. Moreover, 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 or flammable materials, overloaded electrical circuits, children playing with matches, or arson. Depending on the nature of the fire and/or the location of the smoke detectors, the detector, even if it operates as anticipated, may not provide sufficient warning to allow all occupants to escape in time to prevent injury or death.
- Passive Infrared Motion Detectors can only detect intrusion within the designed ranges as diagrammed in their installation manual. Passive Infrared Detectors do not provide volumetric area protection. They do create multiple beams of protection, and intrusion can only be detected in unobstructed areas covered by those beams. They cannot detect motion or intrusion that takes place behind walls, ceilings, floors, closed doors, glass partitions, glass doors, or windows. Mechanical tampering, masking, painting or spraying of any material on the mirrors, windows or any part of the optical system can reduce their detection ability. Passive Infrared Detectors sense changes in temperature; however, as the ambient temperature of the protected area approaches the temperature range of 90° to 150°F, the detection performance can decrease.