

Ademco via 16

Security System

INSTALLATION INSTRUCTIONS

ADEMCO

CONGRATULATIONS

on your purchase of the Ademco via16 System!

The purpose of these Installation Instructions is to give you a brief overview of the Ademco via16 system, and provide instructions for installing a basic system.

As always, ADEMCO is there for YOU! Our SALES and TECHNICAL SUPPORT staff are eager to assist you in any way they can, so don't hesitate to call, for any reason!

East Coast Technical Support: 1-800-645-7492 (8 a.m.-6 p.m. E.S.T.)

West Coast Technical Support: 1-800-458-9469 (8 a.m.-5 p.m. P.S.T.)

PLEASE,

Before you call Technical Support, be sure you have:

- Checked all wiring connections and fuses.
- Determined that the power supply and backup battery are supplying proper voltages.
- Verified your programming information where applicable.
- Noted the proper model number of this product, and the version level (if known) along with any documentation that came with the product.
- Your Ademco customer number and/or company name.

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

Again, CONGRATULATIONS, and WELCOME ABOARD!

FOR YOUR CONVENIENCE, two easily removable Programming Forms have been included at the center of this manual.

ADEMCO LIMITED WARRANTY

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This system is not California State Fire Marshall approved
and, as such, should not be used for fire protection in California
(or other areas requiring such acceptance).

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GENERAL INFORMATION

The *Ademco via16* is a microprocessor-based security control which provides 2 wired zones, and in conjunction with its accompanying No. 4281H RF Receiver, up to 16 wireless (RF) zones. (If a 4281L or 4281M RF Receiver is used instead, only up to 4 or 8 wireless zones respectively can be supported.). *Note: For brevity, subsequent references herein to the RF Receiver will be indicated by "4281" unless otherwise indicated.*

The security control is housed in a wall-mounted metal cabinet measuring 12-1/2" (318mm) wide x 14-1/2" (368mm) high x 3" (76mm) deep, and can be used with a console equipped with a multifunction 12-key digital keypad and a numeric and fixed English status LCD display (4127). Optionally, a No. 4137 may be used, or a No. 5330 Alpha Console (select for Vector device, as described in the 5330's installation instructions) may be used with the control to provide programmable English language zone descriptors and status indications. The system may also be armed and disarmed using a No. 5727 Wireless Keypad.

Connections to the security control are made via a 21-terminal connector block which is used to interface to the wired loops, plug-in transformer, telephone line, remote console(s), external alarm sounder(s), etc. The security control can be easily programmed from any of the above remote consoles. Programmed options to establish specific alarm and reporting features are stored in electrically erasable, non-volatile EEROM memory. This means that the unit can be reprogrammed many times (unlike units equipped with PROMs) and that information which has been programmed will not be lost in the event of a complete loss of power.

The system provides communication capability (central station reporting, etc.) over existing telephone lines. In addition, it can be uploaded, downloaded, or controlled via your computer and Hayes modem.

This system includes an alarm output rated at 2 amps. Throughout the manual, wherever reference is made to Alarm Output Ratings, they assume a fully charged battery is connected unless the UL rating is stated. The battery is periodically tested automatically, and if it cannot sustain a load, a low battery message is displayed and can be reported to the central station.

ZONE CHARACTERISTICS

Zones 1-4: *not present*

Zones 5,6: **Wired Programmable Zones.** EOLR supervised, N.O. or N.C. sensors, 300-500 msec response.

Zone 7: **Console Panic.** 24hr zone, programmable for silent, audible, auxiliary, or fire.

Zone 8: **Duress** (see User's Manual).

Zone 9: **Tamper.**

Wireless Zones. Up to 16 total can be used with the 4281 receiver provided. Zone ID assignments can be in the 10-63 range. Any 5700 series transmitters can be used to make up the wireless zones. This includes window/door units, smoke detectors, PIRs, and panic keys. The selection of a particular transmitter and its zone assignment defines its system characteristics.

REMOTE PROGRAMMING AND CONTROL

The *Ademco via16* can be remotely programmed from an IBM compatible Personal Computer (PC), a Hayes Modem, and Ademco's V-LINK® Software.

Programming the *Ademco via16* from a remote location is protected against compromise by someone attempting to defeat the system, using multi-levels of security protection:

1. **Security Code Handshake:** An 8-digit download ID code must be matched between the *Ademco via16* and the downloader.
2. **Site Initiated Remote Programming:** The installer or subscriber initiates the callback from the subscriber premises (by pressing MASTER CODE + # + 1). All parameters can then be

downloaded via the phone lines using a personal computer.

3. **Station Initiated Remote Programming:** The operator calls the site from your office to initiate the download call. The *Ademco via16* hangs up and then calls back the PC via the pre-programmed telephone number. The unit can then be uploaded, downloaded, or controlled from your office.
4. **Data Encryption:** Data passed between the PC and the *Ademco via16* is encrypted for security so that it is very difficult for a foreign device tapped into the phone line to take over communication and substitute system compromising information.

Equipment Required

At the premises:

- Ademco *via16* and console.

At the installer's office/home:

- An IBM PC compatible computer, a Hayes brand Smartmodem 1200 (Level 1.2 or higher external or Level 1.1 or higher internal style), No. 4130PC Downloading Software Diskette (Rev. 1.78 or higher), and appropriate interconnecting cables.

Programming:

The downloading system can perform many functions when in communication with the control unit. Besides uploading and downloading, the status of the system can be observed and various commands can be initiated.

Notes: After the *Ademco via16* and the PC have established valid communication, each console on the system will become inactive and will display "CC". The *Ademco via16*, however, will still be scanning its zones and looking for alarms. If an alarm does occur, after communication is broken off, alarms are

sounded and the proper dialer reports are sent to the central station. The consoles will become active after the download communication is terminated. The detailed operation of the download functions is covered in the installation instructions for the 4130PC Downloading Software Diskette.

Remote Programming Advisory Notes:

- Alarm and trouble reporting may be delayed during the time that the system and the Downloader are linked to each other following a valid exchange of codes, but the proper message will get through to the Central Station after the link is broken.
- Keypad entries are ignored during the time interval stated above.
- A copy of the program downloaded may be produced from the IBM PC compatible computer, using the product's internal report generator, when an optional printer is connected (consult your PC manual for proper printer and connections).
- Program Download Time—Less than 45 seconds for a complete program.

ZONE TYPES AVAILABLE FOR SELECTION

For each zone used, one of the following zone types must be selected:

0. Zone Disabled

1. **Entry/Exit Burglary.** Assigned to sensors on doors through which entry and exit will normally take place when the system is armed.
2. *not used*
3. **Perimeter Burglary.** Normally assigned to all sensors on exterior doors and windows requiring instant alarm.
4. **Interior, Follower.** Delayed alarm only if the Entry/Exit zone is faulted first; otherwise, produces an instant alarm. Assigned to zone covering an area such as a foyer or lobby through which one must pass upon entry to reach the keypad to disarm the system. Designed to provide instant intrusion alarm in the event an intruder hides on the premises prior to the system being armed or gains access to the premises through an unprotected area.
5. **Trouble by Day/Alarm by Night.** Can be assigned to a zone which contains a foil-protected door or window (such as in a store), or to a zone covering a "sensitive" area such as a stock room, drug supply room, etc., or other controlled access area where immediate notification of an entry is desired. During the disarmed state (day), the system will provide latched Console annunciation (and central station report, if desired) of

openings or troubles (such as sensor malfunctions or foil breaks). During the armed state (night), violations will initiate an alarm.

6. **24-hour Silent Alarm.** This type generally assigned to a zone containing an Emergency button that is designed to initiate an alarm report to the Central Station, but which produces no local displays or alarm sounds.
7. **24-hour Audible Alarm.** This type also assigned to a zone containing an Emergency button, but which will initiate an audible alarm in addition to an alarm report to the Central Station.
8. **24-hour Auxiliary Alarm (Console sounder only).** This type assigned to a zone containing a button for use in personal emergencies, or to a zone containing monitoring devices such as water sensors, temperature sensors, etc. Designed to initiate an alarm report to the Central Station and only provides Console warning sounds and alarm displays.
9. **Supervised Fire (alarm on short/trouble on open) Fire zone** may not be bypassed. Only usable on Zone 5 or Console Panic in the wired system, or on certain zones of the wireless system.

By using the 4281 receiver and the appropriate 5700 series transmitters, all of the above zone types are available for the wireless portion of the system.

WIRELESS ZONES

General

In addition to 2 wired zones, the Ademco *via16*, in conjunction with its 4281 receiver, can provide up to 16 wireless zones. A wireless keypad (5727) also can be used with the system.

The 4281 receiver will normally be mounted within the Ademco *via16*'s cabinet (see Page 7), but it can, instead, be installed remotely, in its own housing.

The 4281 recognizes alarms, status messages and keypad control messages from 5700 Series Wireless Transmitters operating at 345 Mhz (315 Mhz for Canadian version). These messages are processed and relayed to the control panel via a 4 wire connection to the control's remote console terminals. The 4281's RED, BLACK YELLOW, and GREEN wires are connected in parallel with the console wiring.

The 4281 can receive signals from wireless transmitters within a nominal range of 200 feet. See *SPECIFICATIONS* for a list of available transmitters.

Note: The 4281's DIP switch must be set for a receiver address of "1", as described in the 4281's instructions.

Wireless Supervision

Each transmitter (except 5701 and 5727) 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 a transmitter within a predetermined interval, the transmitter number and "CHECK" will be displayed on the console.

Each transmitter (including 5701 and 5727) is also supervised for low battery conditions and will transmit a low battery signal to the 4281 when the battery has approximately 30 days of life remaining.

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

The 4281 itself is supervised. If communication with the receiver is interrupted, or valid RF signals from

wireless transmitters are not received within 12 hours, a tamper report (Zone 9) will be generated.

House Identification

The 4281 responds only to transmitters set to the same House ID (01-31...see the DIP switch tables on P. 18) as programmed in the Ademco *via16* (see field *24). This prevents interference from transmitters in other nearby systems. To make sure that a House ID is chosen that is not in use nearby, conduct the Sniffer Mode test described under *TESTING THE SYSTEM*.

Transmitter Identification

Each transmitter has its own unique ID number which is DIP switch programmable in each unit (except wireless keypads, which are fixed at ID 00). Whenever a transmission takes place, whether for an alarm, fault, check-in, or low battery, the ID number is sent along with the message to the 4281 which, in turn, relays this information to the control, which displays the condition and zone number on the console.

Transmitter ID ranges to be used for various zone types are given in the programming section (fields *76 to *92). DIP switch setting tables are shown on P. 18.

Note: Transmitters set for an ID of 32 through 47 will have a 3-minute lock-out between transmissions to conserve battery life.

Advisories

1. If the 4281 receiver is to be mounted remotely (not in the control's cabinet), place it in a high, centrally located area for best reception.
2. Do not locate receiver or transmitters on or near metal objects. This will decrease range and/or block transmissions.
3. Before mounting transmitters permanently, conduct Go/No Go Tests to verify adequate signal strength (see *TESTING THE SYSTEM*) and reorient or relocate transmitters if necessary.

4-DIGIT SECURITY CODES

Master Security Code

The installer programs the Master Code initially as part of the programming procedure (see "Programming the Security Control"). The Master code permits re-entry into the programming mode and also allows access to the normal functions of the system.

[][][][] Master Code (User #1),
assigned during programming.

Installer exits programming mode with:

- *98 (prevents re-entry into programming mode with Master code).
- *99 (allows re-entry into programming mode with Master code).

By exiting with *98, the only method of getting back into the programming mode from the console is to completely depower the system and follow the procedure noted in the section on "Programming the Security Control".

The Master security code can be used to assign up to three secondary codes; it can also be used to remove all secondary codes from the system (individually).

Secondary security codes are assigned by Master Code as follows:

Master Code + CODE key + User # (2 - 4)
+ Secondary Code

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

Note: When a secondary code is inadvertently repeated for different users, or one user's code is another's duress code, the lower user number will take priority.

Individual secondary security codes can be deleted by user #1 (with Master Code) as follows:

Master Code + CODE key + User # (2 - 4)

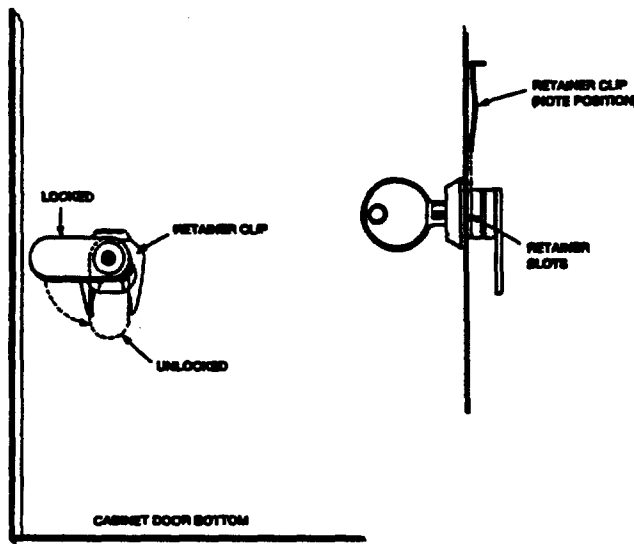
Note: All security codes, master and secondary, permit access to the system for arming, disarming, etc.

INSTALLING THE LOCK (IF USED)

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

Use Ademco No. P3422 Cam Lock and No. P3422-1 Push-On Clip (Retainer Clip).

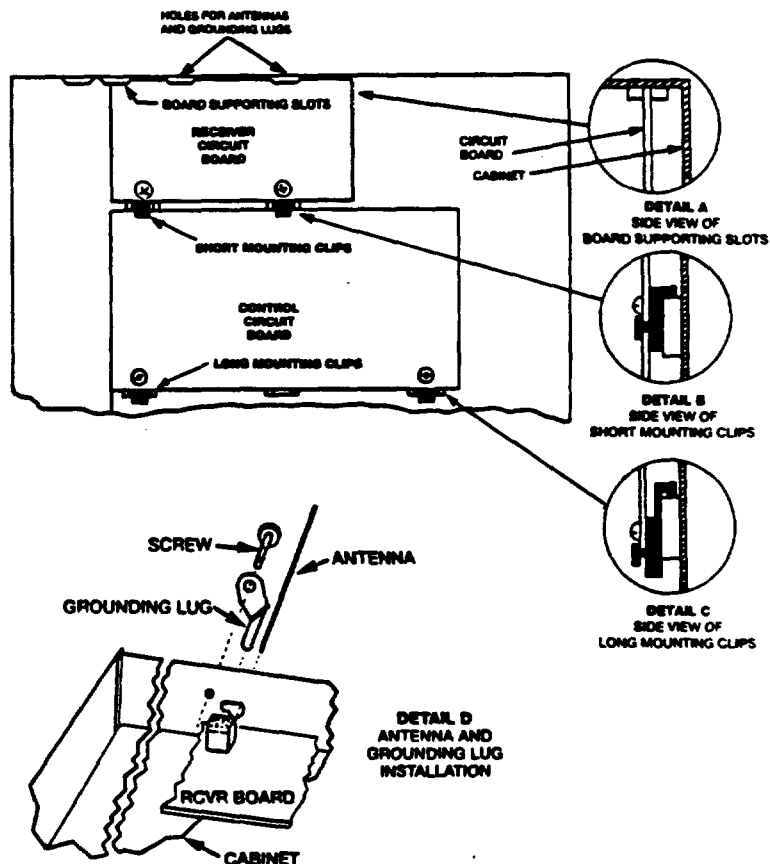
1. Remove the cabinet cover. *It is easily removable for servicing and is easily reinstalled.*
2. Remove the lock knockout from the control cabinet cover. Insert the key into the lock. Position the lock in the hole making certain that the latch will make contact with the latch bracket when the door is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



Note: BEFORE MOUNTING THE CIRCUIT BOARD(S) be sure to remove the appropriate metal knockouts from the cabinet. DO NOT ATTEMPT TO REMOVE THE KNOCKOUTS AFTER THE CIRCUIT BOARD(S) HAVE BEEN INSTALLED.

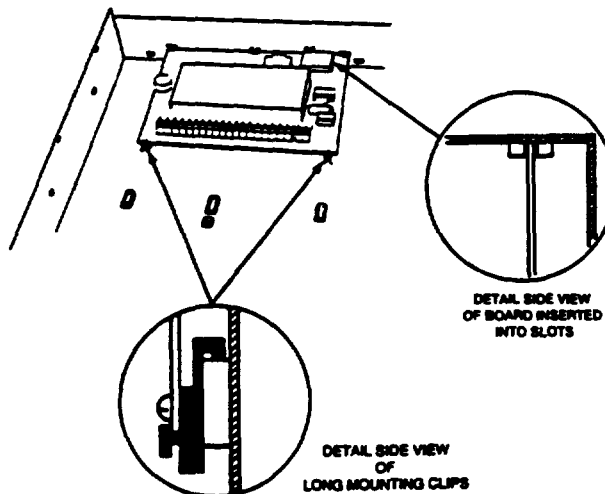
INSTALLING Ademco via16 AND 4281 CIRCUIT BOARDS TOGETHER, IN THE SAME CABINET

1. Hang two *short* (black) mounting clips (provided) on the raised cabinet tabs, as shown in Detail B at right.
2. Insert the top of the 4281 board (removed from its own case as described in *its* instructions) into the slots at the top of the cabinet (see Detail A). Make sure that the board rests on the correct row of tabs.
3. Swing the base of the board into the mounting clips and secure the 4281 to the cabinet with the accompanying screws (see Detail B).
4. Insert the top of the Ademco via16 board into the slot in the clips and position two *long* (red) 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 one of the two grounding lugs (supplied with the 4281), via one of the holes in the top of the cabinet, into the *left-hand* terminal of one of the two antenna blocks (at the upper edge of the 4281 board). Secure it to the cabinet top with one of the screws provided, as shown in Detail D. Do the same at the other antenna block.
7. Insert one of the 4281's two antennas into each block's *right-hand* terminal and tighten both screws.



INSTALLING THE Ademco via16 CIRCUIT BOARD ALONE (WITHOUT THE 4281 IN THE CONTROL'S CABINET)

1. Hang two *long* mounting clips (provided) on the raised cabinet tabs (see lower detail side view at right).
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 the upper detail side view at right).
3. Swing the base of the board into the mounting clips and secure the board to the cabinet with the accompanying screws (as illustrated in lower detail).



WIRING CONNECTIONS

(See Summary of Connections Diagram on Page 17)

IMPORTANT: Do not connect the battery, or plug in the AC transformer, until all other wiring connections have been completed.

Grounding the System

Terminal 21 is the earth ground connection point. In order for the protective devices in this product to be effective, the designated terminal must be terminated in a good earth ground. The following are examples of good earth grounds available at most installations:

Metal cold water pipe: Use a non-corrosive metal strap firmly secured to the pipe to which the lead is electrically connected and secured.

AC power outlet ground: Available from 3-prong, 120VAC power outlets only. To test the integrity of the ground terminal, use a 3-wire circuit tester with neon lamp indicators, such as the UL Listed Ideal Model 61-035, or equivalent, available at most electrical supply stores.

TERMINALS

- 1 & 2: AC Input from No. 1321/TF2 plug-in transformer, in U.S.A. (16.5VAC, 25VA)
NOTE: In Canadian installations, a 1321CN transformer must be used.
 - 3: Alarm relay output(+), 12VDC, 2.0A maximum (600mA max Alarm plus Aux Power, for UL usage).
 - 4: Alarm Output/Auxiliary Power/Wired Fire/Console/4281 (BLACK lead). Ground (-) Return†.
 - 5: Auxiliary/Wired Fire/Console/4281 (RED) Power: +12VDC at 500mA max.†
 - 6: Data In from Console/4281 (GREEN)†.
 - 7: Data Out to Console/4281 (YELLOW)†.
 - 8: not used
 - 9: not used
 - 10: not used
 - 11: not used
 - 12: not used
 - 13: not used
 - 14: Wired Zone 5. When this zone, or zone 6, is used, a 1,000 Ohm EOLR should be wired between the farthest sensor connected to the zone terminal and the low side of the zone.
 - 15: Zones 5 and 6 Return.
 - 16: Wired Zone 6 (see zone 5).
 - 17: Handset (TIP).
 - 18: Handset (RING).
 - 19: Incoming Phone Line (TIP).
 - 20: Incoming Phone Line (RING).
 - 21: EARTH GROUND (a proper earth ground must be provided to protect the system from lightning and electrostatic discharge damage).
- † Home run *each* console individually. If possible (each Ademco 5330 Console used *must* be on an individual home run). Use no more than 220' of #22 wire or 550' of #18 wire.
- Warning:** To prevent the risk of electrical shock, disconnect the telephone line at the Telco jack before servicing the unit.
- RED LEAD:** Battery(+). When AC is present, 13.8VDC is being developed to recharge a gel lead acid battery and when AC is absent, 12VDC current is drawn from the battery. Battery lead reversal will blow the battery fuse.
- BLACK LEAD:** Battery (-).

MOUNTING THE 4127 CONSOLE(S)

- 1. Separate the console from its backplate by removal of the two screws on the top and bottom edges.
- 2. Use the backplate to mark the positions on the wall for the screw mounting holes and the cut-out for the interface wiring. Use wall anchors for the screws and make the cut-out in the wall no larger than indicated on the template. The backplate is designed to be directly mounted to either a single or double gang electrical box.
- 3. Pull the interface wiring in the wall through the cut-out.
- 4. Pass the interface wiring through the opening in the backplate and then mount the backplate to the wall surface with screws.
- 5. Splice the interface wiring to the console wires. Insulated solderless wire splices (such as Ademco No. 311) may be used for splicing.
- 6. Attach the main body of the console to the wall-mounted backplate. The console is properly attached when it is screwed to the backplate by top and bottom screws.

PROGRAMMING THE SECURITY CONTROL

Installer options are stored in non-removable, electrically erasable, non-volatile EEROM memory.* These options must be programmed for the particular installation to establish its specific alarm and reporting features. The security control may be programmed from a remote console.

When programming, the field number will be displayed on the LCD display; also, each entry is displayed as it is keyed in. After programming, values that have been entered in each field can be reviewed and, if necessary, modified.

*Note: It is possible to program the system at any time - even at the installer's premises prior to the actual installation. Simply apply power temporarily to the control and then program the unit as desired.

When programming from the console, note the following:

1. Enter the Programming mode by simultaneously depressing the [*] and [#] keys within 50 seconds after power is applied to the Control, or subsequently by keying the code 4 + 1 + 1 + 0 followed by depression of CODE + 0 keys. Once a Master code is programmed, use it instead of 4110 to gain access to the Programming mode. *If the Programming mode was exited previously using a *98, it will prevent entry into the Programming mode by the use of the Master Code + CODE + 0.*

2. Immediately following entry into the program mode, 20 will be displayed. (If a 5330 console is used, 00 will be displayed. Enter *20 to access the programming start point). Following the above display, the system is ready to accept entries for Address 20.

To program a data field, key [*] plus Address (for example, *21), then make the required entry. To simply review a data field, key [#] plus Address.

3. When a data field has been completely programmed, the console will normally "beep" three times and then automatically proceed to, and display, the next data field address to be programmed (If not, key [*] plus the address of the next field to be programmed).
4. If the number of digits that you enter in the data field is less than the maximum permitted (for example, phone number), then the console will display the last data entered. To proceed, the next data field address to be programmed must then be entered (for example, *42).
5. If an address is improperly entered, the console will display EE. Simply re-enter * or # plus the number.

The following is a description of commands necessary for programming:

FUNCTION	PROCEDURE
ENTER PROGRAMMING MODE	<ol style="list-style-type: none"> 1. POWER UP, then depress [*] and [#] simultaneously within 50 seconds of powering up. OR 2. Initially, Key: 4 + 1 + 1 + 0 plus CODE key + 0. OR 3. After Master Code is programmed, key: Master Code + CODE key + 0. <p>(If *98 was used to exit previously, method 1 above must be used to enter the program mode again.)</p>
EXIT PROGRAMMING MODE	<p>*99 (allows re-entry to programming mode via Type 3 entry method above)</p> <p>*98 (inhibits re-entry to programming mode via Type 3 entry method)</p>
ADVANCE TO FIELD:	[*] + ADDRESS (e.g. 21, 35, 52, etc.).
PROGRAM FIELD:	[*] + ADDRESS, followed by data entries.
ERASE FIELDS:	[*] + ADDRESS + [*] (only applies to Addresses 40 thru 43 and 94.)
READ FIELD:	[#] + ADDRESS
SPECIAL MESSAGES	
OC =	OPEN CIRCUIT (no communication between the Console and the Control).
EE =	ERROR (program entry mistake, re-enter the data).
E4 =	ERROR (using 4281L). If a 4281L is used instead of the 4281H and if anything is programmed in fields *80 to *91, the console will display E4 and the control will be disabled, since the 4281L does not use those fields. Only 00/00 should appear in *80 to *91.
E8 =	ERROR (using 4281M). If a 4281M is used instead of the 4281H and if anything is programmed in fields *84 to *91, the console will display E8 and the control will be disabled, since the 4281M does not use those fields. Only 00/00 should appear in *84 to *91.

After powering up, AC, dl (disabled) and NOT READY will be displayed after approximately 4 seconds. This will revert to READY in appx. 1 minute, which allows PIRS, etc. to stabilize. To bypass this delay, press: # + 0.

SPECIFIC ADDRESS PROGRAMMING INSTRUCTIONS

Note: The following shows Factory Default Settings within brackets: []

THE PROGRAMMING FORM PRINTED ON PAGE 13 CAN BE USED TO RECORD THE DATA FOR THIS INSTALLATION

SYSTEM ARMING (*20-*24)

- *20 **MASTER SECURITY CODE**
[4][1][1][0] Enter 4 digits, 0-9 (entry of all 4 is mandatory). Use of a "9" in the last position inhibits the Ambush feature.
- *21 **QUICK ARM ENABLE**
[0] Enter 1 for enabled or 0 for disabled
- *23 **FORCED BYPASS ENABLE**
[0] Enter 1 for enabled or 0 for disabled
- *24 **RF RECEIVER HOUSE ID CODE**
[00] Enter a house ID of 01-31.

ZONE RESPONSE PROGRAMMING *29-*38

- *29 **FIRE TIMEOUT DISABLE**
[0] Enter 1 to disable the sounder timeout for fire or 0 to enable it.
- *30 **ALARM BELL TIMEOUT**
[1] External sounder will shut off after time allotted. Enter 1 digit.
 No timeout = 0
 4 minutes = 1
 8 minutes = 2
 12 minutes = 3

Use the following table of zone types for programming addresses *35-*37 & *92.

- 0= Zone Disabled
- 1= ENTRY/EXIT, Burglary
- 2= not used
- 3= PERIMETER, Burglary
- 4= INTERIOR, FOLLOWER, Burglary
- 5= TROUBLE BY DAY/ALARM BY NIGHT, Burglary
- 6= 24 Hr (Silent)
- 7= 24 Hr (Audible)
- 8= 24 Hr (Aux)
- 9= FIRE, Fields *35, *37 & *92 only

- *35 **RESPONSE TYPE FOR ZONE 5**
[9] Enter 1 digit,
- *36 **RESPONSE TYPE FOR ZONE 6**
[3] Enter 1 digit
- *37 **RESPONSE TYPE FOR ZONE 7 (Console Panic)**
[6] Enter 1 digit
Only zone types 0,6,7,8,9 applicable.
- *38 **ENTRY/ EXIT DELAY**
[2] System will wait the time allotted before sounding alarm upon entering. Enter 1 digit.
(Exit delay = Entry delay plus 15 seconds)
 0 = 0 Seconds
 1 = 20 Seconds
 2 = 30 Seconds
 3 = 45 Seconds

DIALER PROGRAMMING (*40-48)

- *40 **PABX ACCESS CODE**
[][][][] Enter 4 digits, 0-9, for each PABX digit needed to access an outside line. To skip this field, enter *. If * is entered, no PABX number will be dialed and nothing will appear in this field. End field by entering *41 if not filled. To clear entries from field, press *40*.
- *41 **PRIMARY PHONE No.**
[][][][][][][][][][][][]
Enter up to 12 digits, 0-9. Do not fill unused spaces. End field by entering *42 if not filled. To clear entries from field, press *41*.
 Note: Back-up reporting (8 calls are made to the secondary phone number if no acknowledgment is received after 8 attempts to the primary number) is automatic only if there is a secondary phone number.
- *42 **SECONDARY PHONE No.**
[][][][][][][][][][][][]
See above. End field by entering *43 if not filled. To clear entries from field, press *42*.
- *43 **SUBSCRIBER ACCT. No.**
[15][15][15][15]
Enter digits 0-9; #+11=B; #+12=C; #+13=D; #+14=E; or #+15=F. Enter * as the fourth digit if a 3 digit acct no. (for 3+1 dialer reporting format) is used. Enter 0 as the first digit of a 4-digit acct no. for nos. 0000-0999. End field by entering *44 if only 3 digits are used. To clear entries from field, press *43*.
- *44 **REPORT FORMAT**
[0] Determine which format is to be used to report to central station. Enter 1 digit.
 0 = 3+1; 4+1 ADEMCO L/S Standard
 1 = 3+1; 4+1 Radionics Standard
 2 = 4+2 ADEMCO Lo Speed Standard
 3 = 4+2 Radionics Standard
 6 = 4+2 ADEMCO Express
 7 = ADEMCO Contact ID Reporting
 8 = 3+1; 4+1 ADEMCO Lo Speed Xpanded
 9 = 3+1; 4+1 Radionics Expanded
 (Enter * as the 4th digit of *43 if 3+1 dialer reporting is to be used.)

FIELD	FUNCTION	PROGRAMMED VALUES
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PROGRAMMED VALUES

*20 MASTER SECURITY CODE Enter 4 digits, 0-9

*21 QUICK ARM ENABLE † 0 = no, 1 = yes

*23 FORCED BYPASS ENABLE † 0 = no, 1 = yes

*24 RF RECEIVER HOUSE ID CODE Enter 01-31 House ID

*29 FIRE TIMEOUT DISABLE † ☐ 0 = no, 1 = yes

*30 ALARM BELL TIMEOUT †† ☐ 0 = none; 1 = 4 min; 2 = 8 min; 3 = 12 min

*35	ZONE 5 RESPONSE TYPE	<input type="checkbox"/>	2 = Not used 3 = PERIMETER, Burglary 4 = INTERIOR/FOLLOWER, Burglary	8 = 24 Hr (Auxiliary) 9 = FIRE (Fields *35, *3 only)
*36	ZONE 6 RESPONSE TYPE	<input type="checkbox"/>		
*37	ZONE 7 RESPONSE TYPE	<input type="checkbox"/>	CONSOLE PANIC. Only zone types 0, 6, 7, 8, 9 applicable.	
*38	ENTRY DELAY	<input type="checkbox"/>	0 = 0 sec; 1 = 20 sec; 2 = 30 sec; 3 = 45 sec EXIT Delay = ENTRY Delay + 15 sec	

*40 PABX ACCESS CODE Enter 4 digits, 0-9. If fewer than 4 digits entered, exit by pressing * (and press 41, if entering next field). To clear entries from field, press *40*.

*41 PRIMARY PHONE No. Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit by pressing * (and press 42, if entering next field). To clear entries from field, press *41*.

*42 SECONDARY PHONE No. Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit by pressing * (and press 43, if entering next field). To clear entries from field, press *42*.

*43 SUBSCRIBER ACCOUNT No. Enter 0-9; #+11 for B; #+12 for C; #+13 for D; #+14 for E; #+15 for F. Enter * as 4th digit, if 3+1 dialer reporting is to be used. If only 3 digits used, exit by pressing * (and press 44, if entering next field). To clear entries from field, press *43*.

Examples: For Acct No. 1234, enter:

For Acct No. B234, enter:

For Acct No. 123, enter:

*44	REPORT FORMAT	<input type="checkbox"/>	0 = 3+1, 4+1 ADEMCO L/S STANDARD 1 = 3+1, 4+1 RADIONICS STANDARD 2 = 4+2 ADEMCO L/S STANDARD 3 = 4+2 RADIONICS STANDARD	6 or undefined = 4+2 ADEMCO EXPRESS 7 = ADEMCO CONTACT ID REPORTING 8 = 3+1, 4+1 ADEMCO L/S EXPANDED 9 = 3+1, 4+1 RADIONICS EXPANDED
*45	PHONE SYSTEM SELECT	†† <input type="checkbox"/>	If Cent. Sta. IS NOT on a WATS line: 0 = Pulse Dial; 1 = Tone Dial If Cent. Sta. IS on a WATS line: 2 = Pulse Dial; 3 = Tone Dial	
*46	SESCO/RADIONICS SELECT	† <input type="checkbox"/>	0 = Radionics (0-9, B-F reporting); 1 = SESCOA (0-9 only reporting)	
*47	15 SEC DIALER DELAY (BURG)	† <input type="checkbox"/>	0 = no, 1 = yes Select 0 for all other formats.	
*48	24 HR TEST MESSAGE	† <input type="checkbox"/>	0 = no, 1 = yes (enter Test Code in field *64)	

†† If a number greater than 3 is entered, the control will subtract multiples of 4 to get to the allowable program range.

VIA16-PR 1/92 (See Instructions N5478-1)

TO PROGRAM REPORT CODES FOR ALARM, SYSTEM STATUS, RESTORE, AND XMTR IDs (*55-*91):

With a 3+1 or 4+1 Standard Format: Enter a code in the first box: 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.

A [0] (not [#+10]) in the first box will disable a report.

A [0] (not [#+10]) in the second box will result in automatic advance to the next field when programming.

With an Expanded or 4+2 Format: Enter codes in both boxes (1st and 2nd digits) for 1-9, 0, or B-F, as described above.

A [0] (not [#+10]) in the second box will eliminate the expanded message for that report.

A [0] (not [#+10]) in both boxes will disable the report.

With Ademco Contact ID Reporting: Enter any digit (other than [0]) in the first box, to enable zone to report (entries in the second boxes will be ignored).

A [0] (not [#+10]) in the first box will disable the report.

Examples: For Code 3 (Single Digit), enter:

For Code 32 (Two Digits), enter:

For Code B2 (Hexadecimal) enter:

ALARM REPORT CODES (*55-*59)

- *55 ZONE 5 ALARM REPORT CODE
- *56 ZONE 6 ALARM REPORT CODE
- *57 ZONE 7 ALARM REPORT CODE
(Console Panic)
- *58 ZONE 8 ALARM REPORT CODE
(Duress)
- *59 ZONE 9 ALARM REPORT CODE
(Tamper)

SYS STATUS RPT CODES (*60-*68)

- *60 TROUBLE REPORT CODE
- *61 BYPASS REPORT CODE
- *62 AC LOSS REPORT CODE
- *63 LOW BAT REPORT CODE
- *64 TEST REPORT CODE
- *65 OPEN REPORT CODE †††
- *66 CLOSE REPORT CODE †††

††† 2nd digit is automatically sent as the user number if expanded or 4+2 reporting is selected.

- *67 RF XMTR LOW BAT RPT CODE
- *68 CANCEL REPORT CODE

RESTORE RPT CODES (*69-*75)

- *69 GROUP RESTORES FOR TROUBLE, RF LOW BAT, BYPASS ☐
0 = no, 1 = yes
- *70 ALARM RESTORE RPT CODE
2nd digit is automatically sent as the 2nd digit of the zone alarm report code programmed in *55-*59 and *76-*91, if expanded or 4+2 reporting is selected.
- *71 TROUBLE RESTORE RPT CODE

- *72 BYPASS RESTORE RPT CODE
- *73 AC RESTORE RPT CODE
- *74 LOW BAT RESTORE RPT CODE
- *75 RF XMTR LO BAT RST RPT CODE

RF XMTR ID / RPT CODES (*76-*92)

XMTR ID	Zone Type	XMTR ID	Zone Type
10-13	ENTRY/EXIT, Burg.	56-61	TROUBLE BY DAY/
14-29	PERIMETER, Burg.		ALARM BY NITE, Burg.
30-47	INTERIOR, Burg.	62	24 hr. (audible)
48-55	FIRE	63	Programmed by field *92

Note: 4281H can use *76-*92. (4281M cannot use *84-*91, 4281L cannot use *80-*91)

- | | XMTR ID / RPT Code |
|---|---|
| *76 1st RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *77 2nd RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *78 3rd RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *79 4th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *80 5th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *81 6th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *82 7th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *83 8th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *84 9th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *85 10th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *86 11th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *87 12th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *88 13th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *89 14th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *90 15th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *91 16th RF XMTR ID / RPT CODE | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| *92 ZONE RESPONSE OF XMTR ID 63 (if used) | <input type="checkbox"/> |
- Only zone types 0, 6, 7, 8, 9 applicable.

DOWNLOAD INFO (*94-*97)

- *94 DOWNLOAD PHONE No.
- Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit field by pressing * (and press 95, if entering next field). To clear entries from field, press *94*.

- *95 RING DET COUNT FOR DOWNLOADING
0=Disable Station Initiated Download; 1-14=number of rings (1-9, #+10=10, #+11=11, #+12=12, #+13=13, #+14=14); 15=answering machine defeat (#+15=15)
- *96 INITIALIZES DOWNLOAD ID, SUBSCRIBER ACCOUNT No. FOR INITIAL DWNLOAD
No entry required.
- *97 ZEROS ALL PROGRAM FIELDS
No entry required.

TO EXIT PROGRAM MODE (*98 or *99)

Press *98 or *99 if exiting programming, or next field number if continuing.

- *98 EXITS PROGRAMMING MODE and prevents re-entry by: Master Code + Code + 0.
- *99 EXITS PROGRAMMING MODE and allows re-entry by: Master Code + Code + 0.

Ademco via16 PROGRAMMING FORM

FIELD	FUNCTION	PROGRAMMED VALUES
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SYSTEM ARMING (*20-*24)

- *20 MASTER SECURITY CODE Enter 4 digits, 0-9
- *21 QUICK ARM ENABLE † ☐ 0 = no, 1 = yes
- *23 FORCED BYPASS ENABLE † ☐ 0 = no, 1 = yes
- *24 RF RECEIVER HOUSE ID CODE Enter 01-31 House ID

ZONE RESPONSE PROGRAMMING (*29-*38)

- *29 FIRE TIMEOUT DISABLE † ☐ 0 = no, 1 = yes
- *30 ALARM BELL TIMEOUT †† ☐ 0 = none; 1 = 4 min; 2 = 8 min; 3 = 12 min

ZONE TYPES for PROGRAMMING FIELDS *35-*37 & *92

- | | |
|--|---|
| 0 (or undefined) = Zone Disabled
1 = ENTRY/EXIT, Burglary
2 = not used
3 = PERIMETER, Burglary
4 = INTERIOR/FOLLOWER, Burglary | 5 = TROUBLE BY DAY/
ALARM BY NIGHT, Burg.
6 = 24 Hr (Silent)
7 = 24 Hr (Audible)
8 = 24 Hr (Auxiliary)
9 = FIRE (Fields *35, *37 & *92 only) |
|--|---|
- *35 ZONE 5 RESPONSE TYPE ☐
- *36 ZONE 6 RESPONSE TYPE ☐
- *37 ZONE 7 RESPONSE TYPE ☐ CONSOLE PANIC. Only zone types 0, 6, 7, 8, 9 applicable.
- *38 ENTRY DELAY †† ☐ 0 = 0 sec; 1 = 20 sec; 2 = 30 sec; 3 = 45 sec
EXIT Delay = ENTRY Delay + 15 sec

DIALER PROGRAMMING (*40-*48)

- *40 PABX ACCESS CODE Enter 4 digits, 0-9. If fewer than 4 digits entered, exit by pressing * (and press 41, if entering next field). To clear entries from field, press *40*.
- *41 PRIMARY PHONE No. Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit by pressing * (and press 42, if entering next field). To clear entries from field, press *41*.
- *42 SECONDARY PHONE No. Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit by pressing * (and press 43, if entering next field). To clear entries from field, press *42*.
- *43 SUBSCRIBER ACCOUNT No. Enter 0-9; #+11 for B; #+12 for C; #+13 for D; #+14 for E; #+15 for F. Enter * as 4th digit, if 3+1 dialer reporting is to be used. If only 3 digits used, exit by pressing * (and press 44, if entering next field). To clear entries from field, press *43*.

Examples: For Acct No. 1234, enter: 1234

For Acct No. B234, enter: #+11234

For Acct No. 123, enter: 123*

- *44 REPORT FORMAT ☐
- | | |
|--|---|
| 0 = 3+1, 4+1 ADEMCO L/S STANDARD
1 = 3+1, 4+1 RADIONICS STANDARD
2 = 4+2 ADEMCO L/S STANDARD
3 = 4+2 RADIONICS STANDARD | 6 or undefined = 4+2 ADEMCO EXPRESS
7 = ADEMCO CONTACT ID REPORTING
8 = 3+1, 4+1 ADEMCO L/S EXPANDED
9 = 3+1, 4+1 RADIONICS EXPANDED |
|--|---|
- *45 PHONE SYSTEM SELECT †† ☐ If Cent. Sta. IS NOT on a WATS line: 0 = Pulse Dial; 1 = Tone Dial
If Cent. Sta. IS on a WATS line: 2 = Pulse Dial; 3 = Tone Dial
- *46 SESCOA/RADIONICS SELECT † ☐ 0 = Radionics (0-9, B-F reporting); 1 = SESCOA (0-9 only reporting)
Select 0 for all other formats.
- *47 15 SEC DIALER DELAY (BURG) † ☐ 0 = no, 1 = yes
- *48 24 HR TEST MESSAGE † ☐ 0 = no, 1 = yes (enter Test Code in field *64)

† If a number other than 0 or 1 is entered, even numbers = same as 0; odd numbers = same as 1.

†† If a number greater than 3 is entered, the control will subtract multiples of 4 to get to the allowable program range.

OVER→

TO PROGRAM REPORT CODES FOR ALARM, SYSTEM STATUS, RESTORE, AND XMTR IDs (*55-*91):

With a 3+1 or 4+1 Standard Format: Enter a code in the first box: 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.

A [0] (not [#+10]) in the first box will disable a report.

A [0] (not [#+10]) in the second box will result in automatic advance to the next field when programming.

With an Expanded or 4+2 Format: Enter codes in both boxes (1st and 2nd digits) for 1-9, 0, or B-F, as described above.

A [0] (not [#+10]) in the second box will eliminate the expanded message for that report.

A [0] (not [#+10]) in both boxes will disable the report.

With Ademco Contact ID Reporting: Enter any digit (other than [0]) in the first box, to enable zone to report (entries in the second boxes will be ignored).

A [0] (not [#+10]) in the first box will disable the report.

Examples: For Code 3 (Single Digit), enter:

For Code 32 (Two Digits), enter:

For Code B2 (Hexadecimal) enter:

ALARM REPORT CODES (*55-*59)

- *55 ZONE 5 ALARM REPORT CODE
- *56 ZONE 6 ALARM REPORT CODE
- *57 ZONE 7 ALARM REPORT CODE
(Console Panic)
- *58 ZONE 8 ALARM REPORT CODE
(Duress)
- *59 ZONE 9 ALARM REPORT CODE
(Tamper)

SYS STATUS RPT CODES (*60-*68)

- *60 TROUBLE REPORT CODE
- *61 BYPASS REPORT CODE
- *62 AC LOSS REPORT CODE
- *63 LOW BAT REPORT CODE
- *64 TEST REPORT CODE
- *65 OPEN REPORT CODE
- *66 CLOSE REPORT CODE

††† 2nd digit is automatically sent as the user number if expanded or 4+2 reporting is selected.

- *67 RF XMTR LOW BAT RPT CODE
- *68 CANCEL REPORT CODE

RESTORE RPT CODES (*69-*75)

- *69 GROUP RESTORES FOR TROUBLE, RF LOW BAT, BYPASS
0 = no, 1 = yes
- *70 ALARM RESTORE RPT CODE
2nd digit is automatically sent as the 2nd digit of the zone alarm report code programmed in *55-*59 and *76-*91, if expanded or 4+2 reporting is selected.
- *71 TROUBLE RESTORE RPT CODE

- *72 BYPASS RESTORE RPT CODE
- *73 AC RESTORE RPT CODE
- *74 LOW BAT RESTORE RPT CODE
- *75 RF XMTR LO BAT RST RPT CODE

RF XMTR ID / RPT CODES (*76-*92)

XMTR ID	Zone Type	XMTR ID	Zone Type
10-13	ENTRY/EXIT, Burg.	56-61	TROUBLE BY DAY/
14-29	PERIMETER, Burg.		ALARM BY NITE, Burg.
30-47	INTERIOR, Burg.	62	24 hr. (audible)
48-55	FIRE	63	Programmed by field *92

Note: 4281H can use *76-*92. (4281M cannot use *84-*91, 4281L cannot use *80-*91)

XMTR ID / RPT Code

- *76 1st RF XMTR ID / RPT CODE
- *77 2nd RF XMTR ID / RPT CODE
- *78 3rd RF XMTR ID / RPT CODE
- *79 4th RF XMTR ID / RPT CODE
- *80 5th RF XMTR ID / RPT CODE
- *81 6th RF XMTR ID / RPT CODE
- *82 7th RF XMTR ID / RPT CODE
- *83 8th RF XMTR ID / RPT CODE
- *84 9th RF XMTR ID / RPT CODE
- *85 10th RF XMTR ID / RPT CODE
- *86 11th RF XMTR ID / RPT CODE
- *87 12th RF XMTR ID / RPT CODE
- *88 13th RF XMTR ID / RPT CODE
- *89 14th RF XMTR ID / RPT CODE
- *90 15th RF XMTR ID / RPT CODE
- *91 16th RF XMTR ID / RPT CODE

- *92 ZONE RESPONSE OF XMTR ID 63 (if used)
Only zone types 0, 6, 7, 8, 9 applicable.

DOWNLOAD INFO (*94-*97)

- *94 DOWNLOAD PHONE No.

Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit field by pressing * (and press 95, if entering next field). To clear entries from field, press *94*.

- *95 RING DET COUNT FOR DOWNLOADING
0=Disable Station Initiated Download; 1-14=number of rings (1-9, #+10=10, #+11=11, #+12=12, #+13=13, #+14=14); 15=answering machine defeat (#+15=15)
- *96 INITIALIZES DOWNLOAD ID, SUBSCRIBER ACCOUNT No. FOR INITIAL DWNLOAD
No entry required.
- *97 ZEROS ALL PROGRAM FIELDS
No entry required.

TO EXIT PROGRAM MODE (*98 or *99)

Press *98 or *99 if exiting programming, or next field number if continuing.

- *98 EXITS PROGRAMMING MODE and prevents re-entry by: Master Code + Code + 0.
- *99 EXITS PROGRAMMING MODE and allows re-entry by: Master Code + Code + 0.

→ Continued from Page 10

The Report Codes for Alarm, System Status, Restore, and RF XMTR IDs shown in fields *55-*91 in the following sections may be designated to report to the central station in any of the above formats.

The 3+1 and 4+1 Standard formats comprise a 3 (or 4) digit subscriber number and a single digit report code (e.g. Alarm, Trouble, Restore, Open, Close).

The 3+1 and 4+1 Expanded formats comprise a 3 (or 4) digit subscriber number, and a single digit report code, followed by a second line where the report code is repeated 3 (or 4) times and followed by another number (normally the zone number) or user ID related to that report.

The 4+2 formats comprise a 4 digit subscriber number and single digit report code, immediately followed by the zone number (normally) or user ID.

The Ademco Contact ID Reporting format comprises a 4 digit subscriber number, 1 digit event qualifier ("new" or "restore"), 3 digit event code, 2 digit "00", and 3 digit zone, contact ID, user, or system status number.

Report	3+1/4+1 Standard	3+1/4+1 Expanded	4+2 Expanded
Alarm	SSS(S) A	SSS(S) A AAA(A) Z	SSSS AZ
Trouble	SSS(S) T	SSS(S) T TTT(T) !	SSSS Tt
Bypass	SSS(S) B	SSS(S) B BBB(B) b	SSSS Bb
AC Loss	SSS(S) E	SSS(S) E EEE(E) A _C	SSSS EA _C
Low Batt	SSS(S) L	SSS(S) L LLL(L) L _B	SSSS LL _B
Open	SSS(S) O	SSS(S) O OOO(O) U	SSSS OU
Close	SSS(S) C	SSS(S) C CCC(C) U	SSSS CU
Test	SSS(S) G	SSS(S) G GGG(G) g	SSSS Gg
Restore	SSS(S) R	SSS(S) R RRR(R) Z	SSSS RZ
Alarm AC Restore	SSS(S) R _A	SSS(S) R _A R _A R _A R _A (R _A) A _C	SSSS R _A A _C
LoBat Res.	SSS(S) R _L	SSS(S) R _L RRR(R _L) L _B	SSSS R _L L _B
Trouble Res.	SSS(S) R _T	SSS(S) R _T R _T R _T R _T (R _T) t	SSSS R _T t
Bypass Res.	SSS(S) R _B	SSS(S) R _B R _B R _B R _B (R _B) b	SSSS R _B b

Where:

SSS or SSSS = Subscriber ID
 A = Alarm Code-1st digit
 Z = Typically Zone Number-2nd digit
 Tt = Trouble Code (1st & 2nd digits)
 Bb = Bypass Code (1st & 2nd digits)
 EA_C = AC Loss Code (1st & 2nd digits)
 LL_B = Low Battery Code(1st & 2nd digits)
 O = Open Code-1st Digit
 C = Close Code-1st Digit
 U = User Number (1st & 2nd digits)
 Gg = Test Code (1st & 2nd digits)
 R = Restore Code (Alarm)1st & 2nd digits
 R_Tt = Restore Code (Trbl)1st & 2nd digits
 R_Bb = Restore Code (Bype)1st & 2nd digits
 R_AA_C = Restore Code (AC)1st & 2nd digits
 R_LL_B = Restore Code (Bat)1st & 2nd digits

Zone numbers for: [] & [#] = 7
 Duress = 8
 Tamper = 9

Ademco Contact ID Reporting takes the following format:

CCCC O EEE GG ZZZ

where: CCCC = Customer (subscriber) ID
 O = 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.

*45 PHONE SYSTEM SELECT [0]

Enter 1 digit.

If Central Station Rcvr is *not* on WATS line:

0 = Pulse Dial 1 = Tone Dial

If Central Station Rcvr is on WATS line:

2 = Pulse Dial 3 = Tone Dial

*46 SESCOA/RADIONICS SELECT [0]

0 = Radionics (0-9, B-F reporting)

1 = SESCOA (0-9 only reporting)

*47 15 SECOND DELAY FOR BURG [0]

0 = NO 1 = YES

*48 24 HR TEST MESSAGE [0]

0 = NO 1 = YES

If enabled, code programmed for field *64 will be sent approximately 12 hrs after control is programmed or downloaded, and every 24 hrs thereafter.

TO PROGRAM REPORT CODES FOR ALARM, SYSTEM STATUS, RESTORE, AND XMTR IDs (*55-*91):

With a 3+1 or 4+1 Standard Format: Enter a code in the first box: 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.

A [0] (not [#+10]) in the first box will disable a report.

A [0] (not [#+10]) in the second box will result in automatic advance to the next field when programming.

With an Expanded or 4+2 Format: Enter codes in both boxes (1st and 2nd digits) for 1-9, 0, or B-F, as described above.

A [0] (not [#+10]) in the second box will eliminate the expanded message for that report.

A [0] (not [#+10]) in both boxes will disable the report.

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.

See examples on programming form.

ALARM REPORT CODES (*55-*59)

*55 ZONE 5 ALARM RPT CODE
 [0][0]

*56 ZONE 6 ALARM RPT CODE
 [0][0]

*57 ZONE 7 ALARM RPT CODE
 [0][0] Console Panic

*58 ZONE 8 ALARM RPT CODE
 [0][0] Duress

*59 ZONE 9 ALARM RPT CODE
 [0][0] Tamper

(See box above field *55)

- *68 CANCEL REPORT CODE
[0][0]

(See box above field *55)

- *75 RF XMTR. LOW BAT RESTORE CODE**
[0] [0] If the first digit is set to 0, reporting is disabled.

(See Report Code info box above field *55) (*76-*92)

Note: '76 to '92 can be used with 4281H provided.

- *77 2nd RF XMTR ID /RPRT CODE
[0][0]/[0][0]

- *79 4th RF XMTR ID /RPRT CODE
[0][0]/[0][0]

Note: If a 4281L is used, '80 to '91 do not apply.

- *83 8th RF XMTR ID /RPRT CODE
[0][0]/[0][0]

Note: If a 4281M is used, *84 to *91 do not apply.

- *92 ZONE RESPONSE OF XMTR
ID 63, IF USED
[0] Only zone types 0, 6, 7, 8, 9 applicable.

DOWNLOAD INFORMATION (*94-*97)

- *94 DWNLD PHONE NUMBR**
[][][][][][][][][][][][][]
 Enter up to 12 digits; 0-9. Do not fill unused spaces. End field by entering *.To clear entries from field, press *94*.
- *95 RING DETECTION COUNT FOR DOWNLOADING**
[0] 0 = disable station initiated dwnld
1-14 = # of rings
15 = answering machine defeat
- *96 INITIALIZES DOWNLOAD ID AND SUBSCRIBER ACCT. No. FOR DOWNLOADING**
(No entry required)
- *97 ZEROES ALL PGM FLDS**
(No entry required)

TO EXIT PROGRAM MODE (*98 or *99)

**Press *98 or *99 if exiting programming, or
next Field No. if continuing.**

- *98 EXITS PROGRAMMING MODE
and *prevents* re-entry by:
Master code + code + 0
- *99 EXITS PROGRAMMING MODE
and *allows* re-entry by:
Master code + code + 0

Ademco via16 PROGRAMMING FORM

FIELD	FUNCTION	PROGRAMMED VALUES				
SYSTEM ARMING (*20-*24)						
*20	MASTER SECURITY CODE	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Enter 4 digits, 0-9				
*21	QUICK ARM ENABLE	† <input type="checkbox"/> 0 = no, 1 = yes				
*23	FORCED BYPASS ENABLE	† <input type="checkbox"/> 0 = no, 1 = yes				
*24	RF RECEIVER HOUSE ID CODE	<input type="text"/> <input type="text"/> Enter 01-31 House ID				
ZONE RESPONSE PROGRAMMING (*29-*38)						
*29	FIRE TIMEOUT DISABLE	† <input type="checkbox"/> 0 = no, 1 = yes				
*30	ALARM BELL TIMEOUT	†† <input type="checkbox"/> 0 = none; 1 = 4 min; 2 = 8 min; 3 = 12 min				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">ZONE TYPES for PROGRAMMING FIELDS *35-*37 & *92</th> </tr> <tr> <td style="width: 50%; vertical-align: top;"> 0 (or undefined) = Zone Disabled 1 = ENTRY/EXIT, Burglary 2 = not used 3 = PERIMETER, Burglary 4 = INTERIOR/FOLLOWER, Burglary </td> <td style="width: 50%; vertical-align: top;"> 5 = TROUBLE BY DAY/ ALARM BY NIGHT, Burg. 6 = 24 Hr (Silent) 7 = 24 Hr (Audible) 8 = 24 Hr (Auxiliary) 9 = FIRE (Fields *35, *37 & *92 only) </td> </tr> </table>			ZONE TYPES for PROGRAMMING FIELDS *35-*37 & *92		0 (or undefined) = Zone Disabled 1 = ENTRY/EXIT, Burglary 2 = not used 3 = PERIMETER, Burglary 4 = INTERIOR/FOLLOWER, Burglary	5 = TROUBLE BY DAY/ ALARM BY NIGHT, Burg. 6 = 24 Hr (Silent) 7 = 24 Hr (Audible) 8 = 24 Hr (Auxiliary) 9 = FIRE (Fields *35, *37 & *92 only)
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*35	ZONE 5 RESPONSE TYPE	<input type="checkbox"/>				
*36	ZONE 6 RESPONSE TYPE	<input type="checkbox"/>				
*37	ZONE 7 RESPONSE TYPE	<input type="checkbox"/> CONSOLE PANIC. Only zone types 0, 6, 7, 8, 9 applicable.				
*38	ENTRY DELAY	†† <input type="checkbox"/> 0 = 0 sec; 1 = 20 sec; 2 = 30 sec; 3 = 45 sec EXIT Delay = ENTRY Delay + 15 sec				
DIALER PROGRAMMING (*40-*48)						
*40	PABX ACCESS CODE	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Enter 4 digits, 0-9. If fewer than 4 digits entered, exit by pressing * (and press 41, if entering next field). To clear entries from field, press *40*.				
*41	PRIMARY PHONE No.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit by pressing * (and press 42, if entering next field). To clear entries from field, press *41*.				
*42	SECONDARY PHONE No.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit by pressing * (and press 43, if entering next field). To clear entries from field, press *42*.				
*43	SUBSCRIBER ACCOUNT No.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Enter 0-9; #+11 for B; #+12 for C; #+13 for D; #+14 for E; #+15 for F. Enter * as 4th digit, if 3+1 dialer reporting is to be used. If only 3 digits used, exit by pressing * (and press 44, if entering next field). To clear entries from field, press *43*. <div style="margin-top: 5px;"> Examples: For Acct No. 1234, enter: <input type="text"/> 1 <input type="text"/> 2 <input type="text"/> 3 <input type="text"/> 4 For Acct No. B234, enter: <input type="text"/> #+11 <input type="text"/> 2 <input type="text"/> 3 <input type="text"/> 4 For Acct No. 123, enter: <input type="text"/> 1 <input type="text"/> 2 <input type="text"/> 3 <input type="text"/> * </div>				
*44	REPORT FORMAT	<input type="checkbox"/> 0 = 3+1, 4+1 ADEMCO L/S STANDARD <input type="checkbox"/> 1 = 3+1, 4+1 RADIONICS STANDARD <input type="checkbox"/> 2 = 4+2 ADEMCO L/S STANDARD <input type="checkbox"/> 3 = 4+2 RADIONICS STANDARD <input type="checkbox"/> 6 or undefined = 4+2 ADEMCO EXPRESS <input type="checkbox"/> 7 = ADEMCO CONTACT ID REPORTING <input type="checkbox"/> 8 = 3+1, 4+1 ADEMCO L/S EXPANDED <input type="checkbox"/> 9 = 3+1, 4+1 RADIONICS EXPANDED				
*45	PHONE SYSTEM SELECT	†† <input type="checkbox"/> If Cent. Sta. IS NOT on a WATS line: 0 = Pulse Dial; 1 = Tone Dial If Cent. Sta. IS on a WATS line: 2 = Pulse Dial; 3 = Tone Dial				
*46	SESCOAR/RADIONICS SELECT	† <input type="checkbox"/> 0 = Radionics (0-9, B-F reporting); 1 = SESCOA (0-9 only reporting) Select 0 for all other formats.				
*47	15 SEC DIALER DELAY (BURG)	† <input type="checkbox"/> 0 = no, 1 = yes				
*48	24 HR TEST MESSAGE	† <input type="checkbox"/> 0 = no, 1 = yes (enter Test Code in field *64)				

† If a number other than 0 or 1 is entered, even numbers = same as 0; odd numbers = same as 1.

†† If a number greater than 3 is entered, the control will subtract multiples of 4 to get to the allowable program range.

OVER →

TO PROGRAM REPORT CODES FOR ALARM, SYSTEM STATUS, RESTORE, AND XMTR IDs (*55-*91):

With a 3+1 or 4+1 Standard Format: Enter a code in the first box: 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.

A [0] (not [#+10]) in the first box will disable a report.

A [0] (not [#+10]) in the second box will result in automatic advance to the next field when programming.

With an Expanded or 4+2 Format: Enter codes in both boxes (1st and 2nd digits) for 1-9, 0, or B-F, as described above.

A [0] (not [#+10]) in the second box will eliminate the expanded message for that report.

A [0] (not [#+10]) in both boxes will disable the report.

With Ademco Contact ID Reporting: Enter any digit (other than [0]) in the first box, to enable zone to report (entries in the second boxes will be ignored).

A [0] (not [#+10]) in the first box will disable the report.

Examples: For Code 3 (Single Digit), enter:

For Code 32 (Two Digits), enter:

For Code B2 (Hexadecimal) enter:

ALARM REPORT CODES (*55-*59)

- *55 ZONE 5 ALARM REPORT CODE
- *56 ZONE 6 ALARM REPORT CODE
- *57 ZONE 7 ALARM REPORT CODE
(Console Panic)
- *58 ZONE 8 ALARM REPORT CODE
(Duress)
- *59 ZONE 9 ALARM REPORT CODE
(Tamper)

SYS STATUS RPT CODES (*60-*68)

- *60 TROUBLE REPORT CODE
- *61 BYPASS REPORT CODE
- *62 AC LOSS REPORT CODE
- *63 LOW BAT REPORT CODE
- *64 TEST REPORT CODE
- *65 OPEN REPORT CODE
- *66 CLOSE REPORT CODE

††† 2nd digit is automatically sent as the user number if expanded or 4+2 reporting is selected.

- *67 RF XMTR LOW BAT RPT CODE
- *68 CANCEL REPORT CODE

RESTORE RPT CODES (*69-*75)

- *69 GROUP RESTORES FOR TROUBLE, RF LOW BAT, BYPASS
0 = no, 1 = yes
- *70 ALARM RESTORE RPT CODE
2nd digit is automatically sent as the 2nd digit of the zone alarm report code programmed in *55-*59 and *76-*91, if expanded or 4+2 reporting is selected.
- *71 TROUBLE RESTORE RPT CODE

- *72 BYPASS RESTORE RPT CODE
- *73 AC RESTORE RPT CODE
- *74 LOW BAT RESTORE RPT CODE
- *75 RF XMTR LO BAT RST RPT CODE

RF XMTR ID / RPT CODES (*76-*92)

XMTR ID	Zone Type	XMTR ID	Zone Type
10-13	ENTRY/EXIT, Burg.	56-61	TROUBLE BY DAY/
14-29	PERIMETER, Burg.		ALARM BY NITE, Burg.
30-47	INTERIOR, Burg.	62	24 hr. (audible)
48-55	FIRE	63	Programmed by field *92

Note: 4281H can use *76-*92. (4281M cannot use *84-*91, 4281L cannot use *80-*91)

- *76 1st RF XMTR ID / RPT CODE
- *77 2nd RF XMTR ID / RPT CODE
- *78 3rd RF XMTR ID / RPT CODE
- *79 4th RF XMTR ID / RPT CODE
- *80 5th RF XMTR ID / RPT CODE
- *81 6th RF XMTR ID / RPT CODE
- *82 7th RF XMTR ID / RPT CODE
- *83 8th RF XMTR ID / RPT CODE
- *84 9th RF XMTR ID / RPT CODE
- *85 10th RF XMTR ID / RPT CODE
- *86 11th RF XMTR ID / RPT CODE
- *87 12th RF XMTR ID / RPT CODE
- *88 13th RF XMTR ID / RPT CODE
- *89 14th RF XMTR ID / RPT CODE
- *90 15th RF XMTR ID / RPT CODE
- *91 16th RF XMTR ID / RPT CODE
- *92 ZONE RESPONSE OF XMTR ID 63 (if used)
Only zone types 0, 6, 7, 8, 9 applicable.

DOWNLOAD INFO (*94-*97)

*94 DOWNLOAD PHONE No.

Enter up to 12 digits, 0-9. Do not fill unused spaces. If fewer than 12 digits entered, exit field by pressing * (and press 95, if entering next field). To clear entries from field, press *94*.

- *95 RING DET COUNT FOR DOWNLOADING
0=Disable Station Initiated Download; 1-14=number of rings (1-9, #+10=10, #+11=11, #+12=12, #+13=13, #+14=14); 15=answering machine defeat (#+15=15)
- *96 INITIALIZES DOWNLOAD ID, SUBSCRIBER ACCOUNT No. FOR INITIAL DWNLOAD
No entry required.
- *97 ZEROS ALL PROGRAM FIELDS
No entry required.

TO EXIT PROGRAM MODE (*98 or *99)

Press *98 or *99 if exiting programming, or next field number if continuing.

- *98 EXITS PROGRAMMING MODE and prevents re-entry by: Master Code + Code + 0.
- *99 EXITS PROGRAMMING MODE and allows re-entry by: Master Code + Code + 0.

TESTING THE SYSTEM

After installation is completed, the Security System should be carefully tested.

1. With the System in the disarmed state, check that all zones are intact. If NOT READY is displayed, press the [*] key to display the faulted zone(s). Restore faulted zone(s) if necessary, so that READY is displayed. Fault and restore every sensor individually to assure that it is being monitored by the system.
2. Enter the security code and press the TEST key. The external sounder (if used) should sound for 1 second and then turn off 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 external sounder will not turn on and a LOW BATTERY report will be transmitted instead of a TEST report. The keypad will beep once per minute to indicate that the system is in the Test Mode.

Alarm messages will be sent to the central station during the following tests 3 and 4. Notify them that tests will be in progress.

3. Arm the system and fault one or more zones. After 15 seconds (if optional dialer delay is selected), silence alarm sounder(s) by entering the code and pressing OFF. Check Entry/Exit delay zones.
4. Check the keypad-initiated alarm by pressing the Panic key pairs - [*] and [#]. If the system has been programmed for audible emergency, the console will emit a steady alarm sound, and ALARM and 07 will be displayed. Silence the alarm by entering the security code and pressing OFF.

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

5. Notify the central station that all tests are finished, and verify results with them.
6. To test the wireless part of the system and the 4281, 3 additional test modes are available:

- a. **SNIFFER MODE:** By pressing security code + # + 2, a house code "sniffer" mode is enabled. The console will display the house code of any RF transmission it receives. In this way, you can check that you are not using the same house code as any nearby system (suggested test period: approx. 2 hrs). This mode can be exited by keying the security code + OFF.
- b. **TRANSMITTER TEST MODE:** By pressing security code + # + 3, the console 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 addresses should disappear after about 1-1/2 hours. This mode can be exited by keying security code + OFF.
- c. **GO/NO GO TEST MODE:** By pressing security code + # + 4, a mode similar to the user test mode (security code + TEST) is entered, but the wireless receiver gain is reduced. Checking transmitters in this mode enables verifying that the RF transmission has sufficient signal amplitude margin for the installed system. Exit the mode by entering security code + OFF.

Note: If the battery standby capacity is exceeded during an AC power failure, the system will automatically shut itself 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 insure the system's proper operation at all times.

ACCESSORIES

No. 1321/TF2	16.5VAC, 25VA Plug-In Transformer (U.S.A. installations).
No. 1321CN	16.5VAC, 25VA Plug-In Transformer (Canadian installations).
BRK PA400B	Piezoelectric Alarm Sounder, 90dB output (mounts in single-gang box).
No. 702	Self-contained 20 watt Siren (indoor or outdoor).
No. 740	Extremely loud Piezoelectric Alarm Sounder, 122dB output (indoor or outdoor).

via 16-PR	Programming Form (Pkg of 50).
BRK 1412	4-wire Ionization Products of Combustion Detector
BRK 2412	4-wire Photoelectric Smoke Detector
BRK 2412TH	4-wire Photoelectric Smoke Detector w/135°F (57°C) Heat Detector
also:	see SPECIFICATIONS on next page

SPECIFICATIONS

Ademco via16 SECURITY CONTROL

1. Physical: 12-1/2" (318mm)W
14-1/2" (368mm)H
3" (76mm)D

2. Electrical:

VOLTAGE INPUT: 16.5VAC from plug-in 25VA transformer, Ademco No. 1321/TF2, (in U.S.A.).

Note: For Canadian installations, a No. 1321CN transformer must be used.

RECHARGEABLE BACK-UP BATTERY: 12VDC, 4AH (Gel type)

ALARM SOUNDER: 12V, 2.0Amp output can drive 12V BELLS or can drive one or two 702 (series connected) self-contained 20-watt sirens. Do not connect two 702s in parallel.

AUXILIARY POWER OUTPUT: 12VDC, 500mA max. Interrupts for smoke detector reset.

Note: For UL installations, Alarm Sounder plus Auxiliary Power current should not exceed 600mA total.

STANDBY TIME: 4 HRS with Auxiliary load of 500mA (using 4AH battery). To determine total standby battery load, add 90mA to total Aux. power output and remote console currents.

FUSES: Battery (3A) No. 90-12
Sounder (2A) No. 90-2

3. Communication:

FORMATS SUPPORTED:

Ademco Express, 10 characters/sec, DTMF (TouchTone) Data Tones, 1400/2300Hz ACK, 1400Hz KISSOFF

Ademco Contact ID Reporting, 10 characters/sec., DTMF (TouchTone) Data Tones, 1400/2300Hz ACK, 1400Hz KISSOFF

Ademco Low Speed, 10 pulses/sec, 1900Hz Data Tone, 1400Hz ACK/KISSOFF

Radionics/SESCO, 20 pulses/sec, 1800Hz Data Tone, 2300Hz ACK/KISSOFF.

Can report 0-9, B-F

Line Seize: Double Pole

Ringer Equivalence: 0.7B

FCC Registration No.: AC 398U-68192-AL-E

4127 REMOTE CONSOLE

1. Physical: 5-5/8" (143mm)W
4-11/16" (119mm)H
7/8" (22mm)D
2. Electrical: Voltage Input: 12V DC
Current Drain: 20 mA
3. Interface Wiring:
RED: 12VDC input (+) aux pwr
GREEN: Data Out to Control
YELLOW: Data In from Control
BLACK: Ground

4137 REMOTE CONSOLE

1. Physical: 8-2/5" (213mm)W
4-3/4" (121mm)H
1-1/10" (28mm)D
2. Electrical: Voltage Input: 12VDC
Current Drain: 60mA
3. Interface Wiring:
RED: 12VDC input (+) aux pwr
BLUE: 18VDC input from optional No 1350 or 1360 Power Pack
GREEN: Data Out to Control
YELLOW: Data In from Control
BLACK: Ground and (-) connection from optional No. 1350 or 1360 Power Pack

5330 REMOTE ALPHA CONSOLE (Select Vector Device)

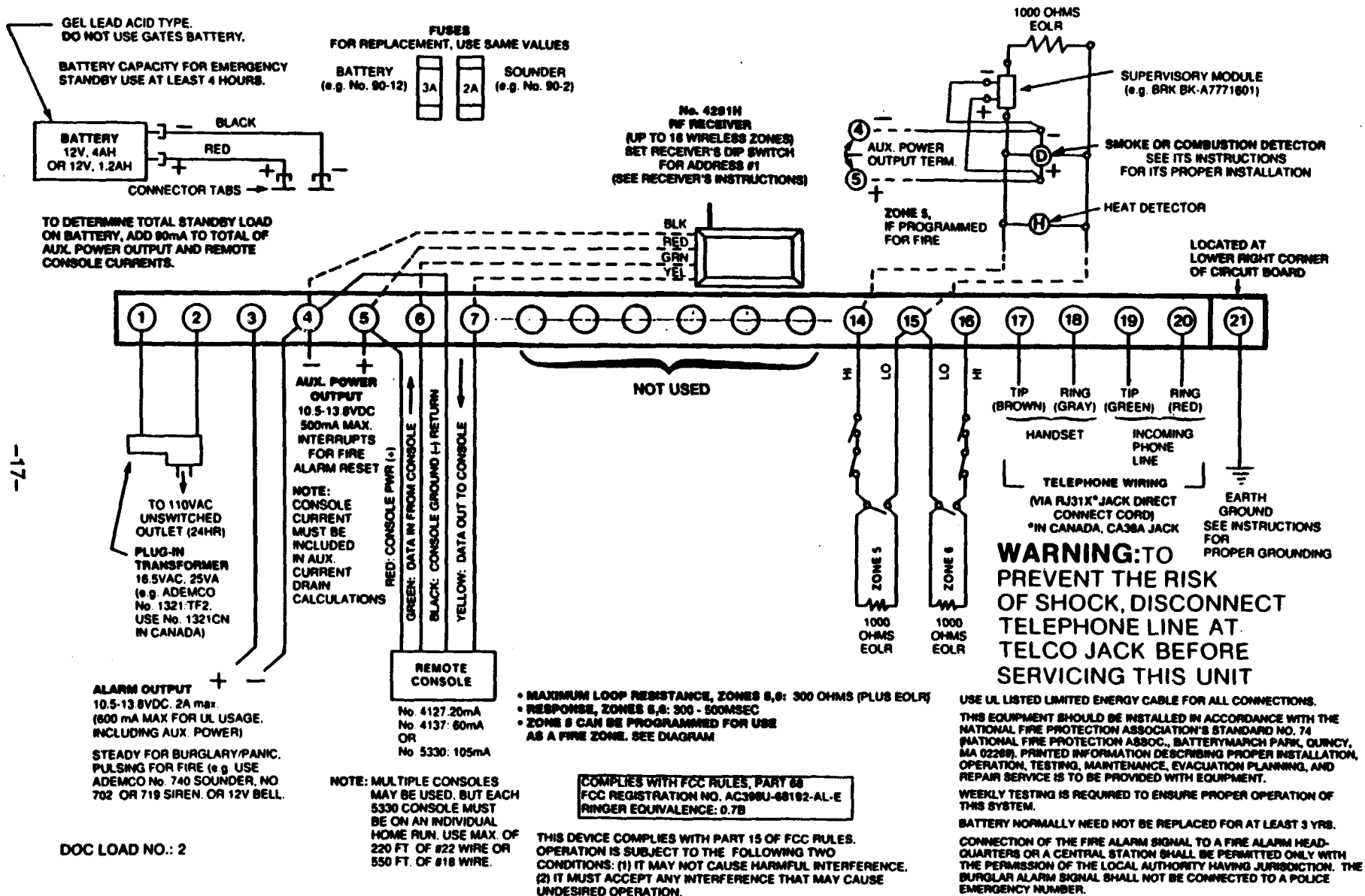
1. Physical: 7-3/4" (197mm)W
4-7/16" (113mm)H
1-1/4" (32mm)D
2. Electrical: Voltage Input: 12VDC
Current Drain: 105mA
3. Interface Wiring:
RED: 12VDC input (+) aux pwr
GREEN: Data Out to Control
YELLOW: Data In from Control
BLACK: Ground

4281H (also 4281M & 4281L) RF RECEIVER Up to 16 Wireless Zones (4281M: up to 8, 4281L: up to 4)

1. Physical: 7-3/8" (188mm)W
4-3/8" (112mm)H
10-7/8" (277mm)H ←with antenna
1-7/16" (37mm)D
2. Electrical: Voltage Input: 12VDC
(from control's remote console connection points)
Current Drain: 35mA
3. Interface Wiring:
RED: 12VDC input (+) aux pwr
GREEN: Data Out to Control
YELLOW: Data In from Control
BLACK: Ground
4. Range: 200ft (60m) nominal indoors from wireless transmitters (the actual range to be determined with system in TEST mode).

WIRELESS TRANSMITTERS for 4281

- 5701 Panic Transmitter
5706 Photoelectric Smoke Detector/Transmitter
5711 Door/Window Transmitter
5711WM Door/Window Xmtr. w/Reed Switch
5715WH Universal Transmitter (white)
5715BR Universal Transmitter (brown)
5716 Miniature Door/Window Transmitter
5742 Blue Grass Audio Discriminator/Transmitter
5743 Blue Grass Dual Technology Glass Break Detector/Transmitter
5775 Passive Infrared Detector/Transmitter
5727 Wireless Keypad
5799 Pkg of 8 Magnets (for 5716)



Ademco via 16
SUMMARY OF CONNECTIONS

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 AC power supply is cut off for any reason, however briefly.
- Signals sent by wireless transmitters may be blocked or reflected by metal before they reach the alarm receiver. Even if the signal path has been recently checked during a weekly test, blockage can occur if a metal object is moved into the path.
- A user may not be able to reach a panic or emergency button quickly enough.
- While smoke detectors have played a key role in reducing residential fire deaths in the United States, they may not activate or provide early warning for a variety of reasons in as many as 35% of all fires, according to data published by the Federal Emergency Management Agency. Some of the reasons smoke detectors used in conjunction with this System may not work are as follows. Smoke detectors may have been improperly installed and positioned. Smoke detectors may not sense fires that start where smoke cannot reach the detectors, such as in chimneys, in walls, or roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level of a residence or building. A second floor detector, for example, may not sense a first floor or basement fire. Finally, smoke detectors have sensing limitations. No smoke detector can sense every kind of fire every time. In general, detectors may not always warn about fires caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson. Depending on the nature of the fire and/or location of the smoke detectors, the detector, even if it operates as anticipated, may not provide sufficient warning to allow all occupants to escape in time to prevent injury or death.
- Passive Infrared Motion Detectors can only detect intrusion within the designed ranges as diagrammed in their installation manual. Passive Infrared Detectors do not provide volumetric area protection. They do create multiple beams of protection, and intrusion can only be detected in unobstructed areas covered by those beams. They cannot detect motion or intrusion that takes place behind walls, ceilings, floors, closed doors, glass partitions, glass doors, or windows. Mechanical tampering, masking, painting or spraying of any material on the mirrors, windows or any part of the optical system can reduce their detection ability. Passive Infrared Detectors sense changes in temperature; however, as the ambient temperature of the protected area approaches the temperature range of 90° to 150°F, 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 console (and remote keypad) should be tested as well.

This system's wireless transmitters 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.



NS478-1 1/82

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

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

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

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

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie 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 électricien, selon le cas.

L'indice de charge (IC) assigné à chaque dispositif terminal pour éviter toute surcharge indique le pourcentage de la charge totale qui peut être raccordée 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.

FEDERAL COMMUNICATIONS COMMISSION (FCC) STATEMENT

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

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

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

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 under Stock No. 004-000-00450-7 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.

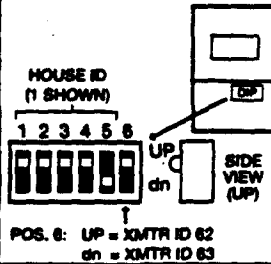
DIP SWITCH TABLES FOR WIRELESS DEVICES

House ID Switch Setting for All Devices Except 5716

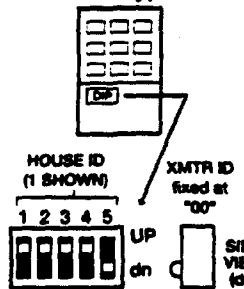
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2	UP	UP	dn	UP	UP
3	UP	UP	dn	dn	UP
4	UP	UP	dn	UP	dn
5	UP	UP	dn	dn	UP
6	UP	UP	dn	dn	dn
7	UP	dn	UP	UP	UP
8	UP	dn	UP	dn	UP
9	UP	dn	UP	dn	dn
10	UP	dn	dn	UP	UP
11	UP	dn	dn	UP	dn
12	UP	dn	dn	dn	UP
13	UP	dn	dn	dn	dn
14	dn	UP	UP	UP	UP
15	dn	UP	UP	dn	UP
16	dn	UP	UP	dn	dn
17	dn	UP	dn	UP	UP
18	dn	UP	dn	UP	dn
19	dn	UP	dn	dn	UP
20	dn	UP	dn	dn	dn
21	dn	dn	UP	UP	UP
22	dn	dn	UP	dn	UP
23	dn	dn	UP	dn	dn
24	dn	dn	dn	UP	UP
25	dn	dn	dn	UP	dn
26	dn	dn	dn	dn	UP
27	dn	dn	dn	dn	dn
28	dn	dn	dn	dn	dn
29	dn	dn	dn	dn	dn
30	dn	dn	dn	dn	dn
31	dn	dn	dn	dn	dn

SET VALUE: 16 8 4 2 1

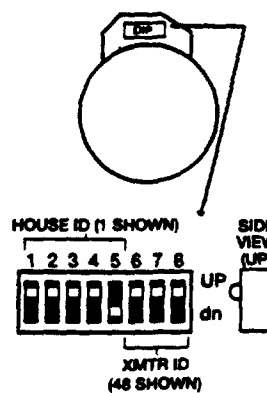
5701 Panic Xmtr.



5727 Keypad

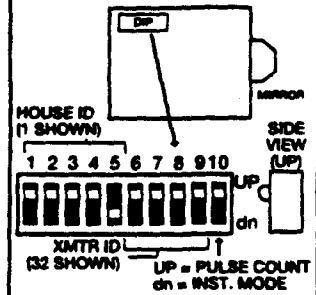


5706 Smoke Detector/Transmitter



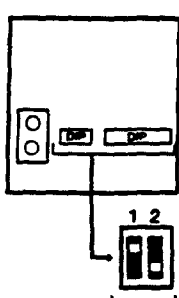
XMTR ID	6	7	8
48	UP	UP	UP
49	UP	UP	dn
50	UP	dn	UP
51	UP	dn	dn
52	dn	UP	UP
53	dn	UP	dn
54	dn	dn	UP
55	dn	dn	dn

5775 PIR Detector/Transmitter



XMTR ID	DIP SWITCH SETTINGS
32	UP UP UP UP UP
33	UP UP UP UP dn
34	UP UP UP dn UP
35	UP UP dn UP UP
36	UP UP dn dn UP
37	UP dn UP UP UP
38	UP dn UP dn UP
39	UP dn dn UP UP
40	dn UP UP UP UP
41	dn UP UP dn UP
42	dn UP dn UP UP
43	dn UP dn dn UP
44	dn dn UP UP UP
45	dn dn UP dn UP
46	dn dn dn UP UP
47	dn dn dn dn UP

5715 Universal Xmtr.

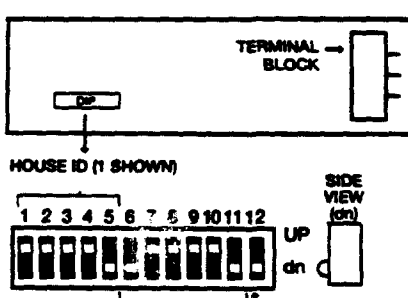


POS. 1: UP = NORMAL RESPONSE
dn = FAST RESPONSE
POS. 2: UP = NO COVER TAMPER
dn = COVER TAMPER (use N.C. setting)

XMTR ID	DIP SWITCH SETTINGS
1	UP UP UP UP UP
2	UP UP UP UP dn
3	UP UP UP dn UP
4	UP UP dn UP UP
5	UP UP dn dn UP
6	UP dn UP UP UP
7	UP dn UP dn UP
8	UP dn dn UP UP
9	UP dn dn dn UP
10	dn UP UP UP UP
11	dn UP UP dn UP
12	dn UP dn UP UP
13	dn UP dn dn UP
14	dn dn UP UP UP
15	dn dn UP dn UP
16	dn dn dn UP UP
17	dn dn dn dn UP
18	dn dn dn dn dn
19	dn dn dn dn dn
20	dn dn dn dn dn
21	dn dn dn dn dn
22	dn dn dn dn dn
23	dn dn dn dn dn
24	dn dn dn dn dn
25	dn dn dn dn dn
26	dn dn dn dn dn
27	dn dn dn dn dn
28	dn dn dn dn dn
29	dn dn dn dn dn
30	dn dn dn dn dn
31	dn dn dn dn dn
32	dn dn dn dn dn

SET VALUE: 32 16 8 4 2 1

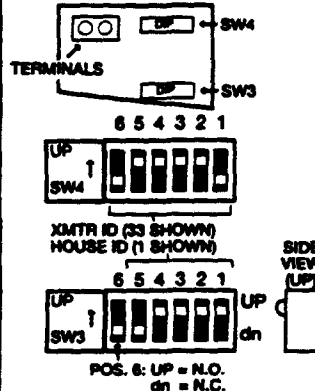
5711/5711WM Door/Window Transmitter



XMTR ID	DIP SWITCH SETTINGS
33	UP UP UP UP UP
34	UP UP UP UP dn
35	UP UP UP dn UP
36	UP UP dn UP UP
37	UP UP dn dn UP
38	UP dn UP UP UP
39	UP dn UP dn UP
40	UP dn dn UP UP
41	UP dn dn dn UP
42	dn UP UP UP UP
43	dn UP UP dn UP
44	dn UP dn UP UP
45	dn UP dn dn UP
46	dn dn UP UP UP
47	dn dn UP dn UP
48	dn dn dn UP UP
49	dn dn dn dn UP
50	dn dn dn dn dn
51	dn dn dn dn dn
52	dn dn dn dn dn
53	dn dn dn dn dn
54	dn dn dn dn dn
55	dn dn dn dn dn
56	dn dn dn dn dn
57	dn dn dn dn dn
58	dn dn dn dn dn
59	dn dn dn dn dn
60	dn dn dn dn dn
61	dn dn dn dn dn
62	dn dn dn dn dn
63	dn dn dn dn dn

SET VALUE: 32 16 8 4 2 1

5716 Door/Window Transmitter



HOUSE ID	DIP SWITCH SETTINGS
1	UP UP UP UP UP
2	UP UP UP UP dn
3	UP UP UP dn UP
4	UP UP dn UP UP
5	UP UP dn dn UP
6	UP dn UP UP UP
7	UP dn UP dn UP
8	UP dn dn UP UP
9	UP dn dn dn UP
10	dn UP UP UP UP
11	dn UP UP dn UP
12	dn UP dn UP UP
13	dn UP dn dn UP
14	dn dn UP UP UP
15	dn dn UP dn UP
16	dn dn dn UP UP
17	dn dn dn dn UP
18	dn dn dn dn dn
19	dn dn dn dn dn
20	dn dn dn dn dn
21	dn dn dn dn dn
22	dn dn dn dn dn
23	dn dn dn dn dn
24	dn dn dn dn dn
25	dn dn dn dn dn
26	dn dn dn dn dn
27	dn dn dn dn dn
28	dn dn dn dn dn
29	dn dn dn dn dn
30	dn dn dn dn dn
31	dn dn dn dn dn

SET VALUE: 1 2 4 8 16

TRANSMITTER ID	DIP SWITCH SETTINGS
1	UP UP UP UP UP
2	UP UP UP UP dn
3	UP UP UP dn UP
4	UP UP dn UP UP
5	UP UP dn dn UP
6	UP dn UP UP UP
7	UP dn UP dn UP
8	UP dn dn UP UP
9	UP dn dn dn UP
10	dn UP UP UP UP
11	dn UP UP dn UP
12	dn UP dn UP UP
13	dn UP dn dn UP
14	dn dn UP UP UP
15	dn dn UP dn UP
16	dn dn dn UP UP
17	dn dn dn dn UP
18	dn dn dn dn dn
19	dn dn dn dn dn
20	dn dn dn dn dn
21	dn dn dn dn dn
22	dn dn dn dn dn
23	dn dn dn dn dn
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25	dn dn dn dn dn
26	dn dn dn dn dn
27	dn dn dn dn dn
28	dn dn dn dn dn
29	dn dn dn dn dn
30	dn dn dn dn dn
31	dn dn dn dn dn
32	dn dn dn dn dn
33	dn dn dn dn dn
34	dn dn dn dn dn
35	dn dn dn dn dn
36	dn dn dn dn dn
37	dn dn dn dn dn
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58	dn dn dn dn dn
59	dn dn dn dn dn
60	dn dn dn dn dn
61	dn dn dn dn dn
62	dn dn dn dn dn
63	dn dn dn dn dn

SET VALUE: 1 2 4 8 16 32