VISTA XM SERIES

GENERAL FORMAT AND DIP SWITCH TABLES HAVE BEEN REVISED IN THIS ISSUE.

4280/4280-8 INSTALLATION INSTRUCTIONS

ADEMCO

N4501V4 10/91

GENERAL INFORMATION

INTRODUCTION

The 4280/4280-8 RF Receiver is a component of the VISTA XM system which recognizes alarms, status messages and keypad control messages from ALERT III (5700 series) transmitters at 345 MHz (U.S.A.)*. (The 4280/4280-8 is *not compatible* with Alert II (5600 series) transmitters.) These messages are processed and relayed to the VISTA XM Control panel via a 2-wire polling loop. Using a 4280 allows expansion up to 63 zones, plus a wireless keypad (5727). The 4280-8 supports 8 zones, plus a wireless keypad (5727).

To use ALERT III wireless transmitters with the VISTA XM system, a 4171XT-XM dialer board, and a 4152LMB loop module must be installed in the Control, and either one or two 4280s (or 4280-8s, if only 8 wireless zones are required) must be connected to the polling loop. Note that the 4280 and 4280-8 each draw 40mA current. If two Receivers are used, power for the second Receiver should be taken from the auxiliary power connection on the main Control.

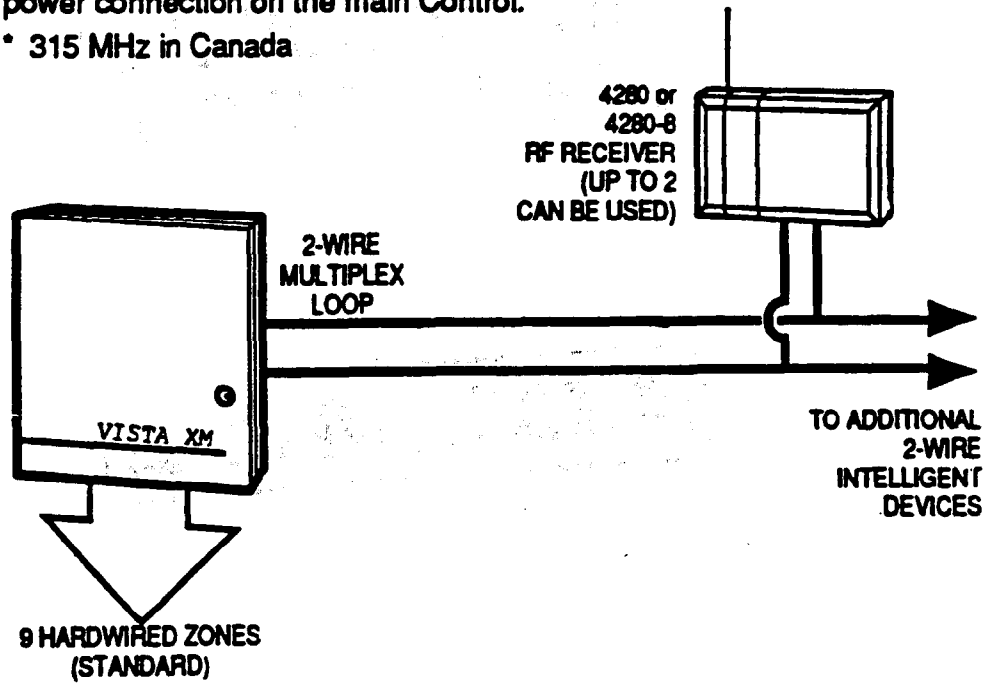
* 315 MHz in Canada

RANGE

The 4280/4280-8 RF Receiver can receive signals from wireless transmitters within a nominal range of 200 feet. This provides greater expandability in installations where hard wire might not be feasible. By using two Receivers, the effective range can be increased to suit the needs of a particular installation.

IMPORTANT! The Receiver must be mounted a minimum of 10 feet from the Control and other electronic equipment. Mounting closer than 10 feet can result in RF communication failures between the transmitters and Receiver, due to interference from the Control's microprocessor.

NOTE: The 4280-8 Receiver is identical to the 4280, except that it supports up to 8 zones only. To avoid confusion, the term "Receiver" is used in this document to collectively represent both the 4280 and 4280-8 Receivers.



RECEIVER SUPERVISION

1. If the cover of the Receiver is removed, an ALARM or TROUBLE will be displayed depending upon the response programmed in the Control.

2. If the connection is broken between the Receiver and the Control, an ALARM or TROUBLE will be displayed depending on the response programmed in the Control. This response is usually that of a DAY/NIGHT or 24 hour type.

3. If, within a programmed interval of time, the Receiver does not hear from *any* of its transmitters, an ALARM or TROUBLE will be displayed depending on the response programmed in the Control. The interval is programmed in field 1*30.

4280 HOUSE IDENTIFICATION

The Receiver responds only to transmitters with the same house ID (DIP switch programmable from 01-31). This prevents system interference from transmitters in other nearby systems. To make sure you do not choose a House ID that is in use nearby, put the system in the Sniffer Mode, which is described later in this document.

DIP SWITCH SETTINGS: Refer to the separate DIP Switch Tables at the end of this document (also included with the VISTA XM Control) for specific transmitter ID settings.

TRANSMITTER SUPERVISION

Each transmitter (except 5701 and 5727) automatically transmits a check-in signal to the Receiver at 70-90 minute intervals. If the Receiver does not hear at least one Check-in signal from a transmitter within a programmed interval (4-30 hours; field 1*31), the console will display that transmitter's ID number and the word "CHECK".

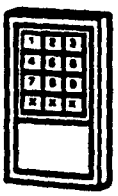
Each transmitter (including 5701 and 5727) is also supervised for low battery conditions, and will transmit a low battery signal to the Receiver when the battery has approximately 30 days of life remaining. The console will beep once every 60 seconds, and display the transmitter's ID number and the words "LO BAT" (5130XM/5137) or "BAT" (4130XM/4137).

NOTE: After replacing a low or dead battery, activate the transmitter and enter the security code + OFF at the control to clear its memory of the low battery signal.

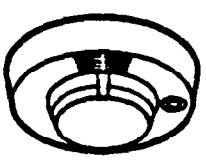
TRANSMITTER IDENTIFICATION

Each transmitter is assigned its own unique ID number (Zone #; DIP switch programmable). Whenever a transmission takes place, either for an alarm, fault, check-in or low battery, this ID number is sent along with the message to the Receiver which, in turn, relays this information to the control panel, which displays the condition and zone number on the console.

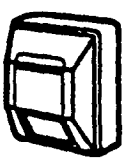
DOOR/WINDOW TRANSMITTER 5711WM



WIRELESS KEYPAD 5727



WIRELESS SMOKE DETECTOR 5775



WIRELESS PIR 5775

DOOR/WINDOW TRANSMITTER 5716

WIRELESS PANIC BUTTON 5701

CONFIGURATIONS

SINGLE RECEIVER

A single 4280 RF receiver can uniquely identify up to 64 transmitters within a nominal 200' range, without hard-wiring a large premises, and is suitable for many installations.

2 RECEIVERS = REDUNDANCY

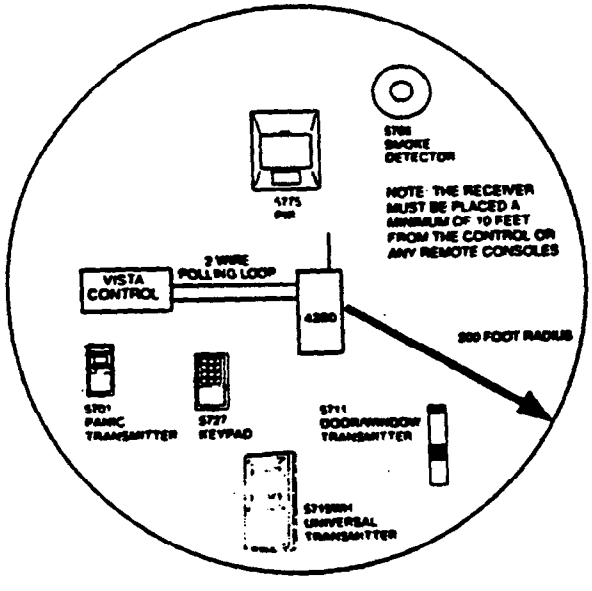
For additional security, some installations might warrant a redundant configuration. This means that 2 receivers, connected to the same 2-wire polling loop, are used and set to the same house ID. Each of these receivers listens to all of the transmitters on the job, but if one receiver happens to fail or is sabotaged, or a path from one or more transmitters is inadvertently blocked by a metal object, the other one will still be there to detect alarms, and faults, and to supervise the transmitters. Both 4280s (or 4280-8s) are fully supervised so that if one does fail or is deliberately sabotaged, you'll know about it.

USING TWO RECEIVERS TO INCREASE COVERAGE

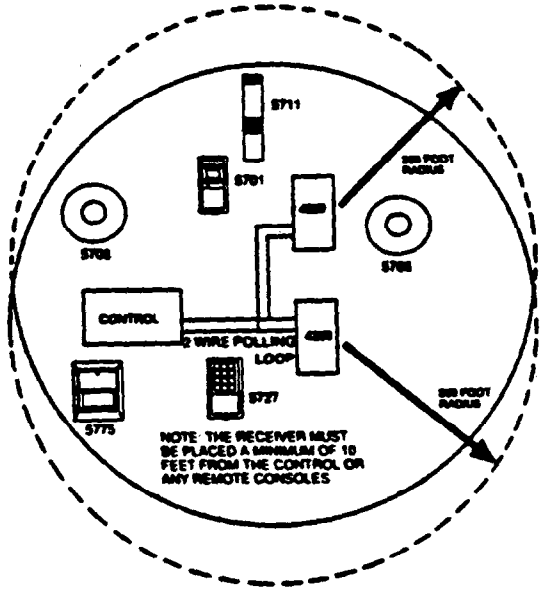
For installations where the area to be protected goes well beyond the 200' range of the system, or the building configuration prevents getting the rated range in all paths to transmitters, a second receiver can be installed. The first 4280 is located at one end of the premises and the second 4280 at the other with both 4280s connected to the same 2-wire polling loop.

IMPORTANT: If two 4280s used:

- Both must be at least 10 feet from each other, as well as from the Vista XM Control panel and remote consoles.
- One of the 4280s or 4280-8s must be powered from auxiliary power.
- The house IDs must be the same.
- Using two Receivers *does not* increase the number of transmitters the system can support (63 transmitters, plus a wireless keypad).



SINGLE WIRELESS RECEIVER



TWO WIRELESS RECEIVERS REDUNDANT CONFIGURATION

WIRELESS ZONE TYPES

Each RF zone can be programmed to respond as any zone type such as ENTRY/EXIT, INTERIOR, PERIMETER, etc. (refer to the VISTA XM Technical Reference Manual for a complete explanation of each zone type). Alarm responses as follows:

ZONE TYPE	TRANSMITTER ID #
Entry/Exit Burg	1 through 63 *
Perimeter Burg	1 through 63 *
Interior Burg	1 through 63 * 32 - 47 * (5775)
Fire	1 - 63 *(5715) 48 - 55 ** (5706)
24 Hour Panic (silent or audible)	1 through 63* 62 - 63 *** (5701)
Day/Night Burglary	1 through 63 *
24 Hour Auxiliary	1 through 63 *

NOTES:

* Transmitters set for an ID of 32 through 47 will have a 3 minute lock-out between transmissions.

** Transmitter IDs 48 through 55 have highest signal priority.

*** Transmitter IDs 62 and 63 are unsupervised to allow removal of the 5701 off premises – signal priority is lower than fire, but higher than burglary.

PROGRAMMING & DISPLAYS

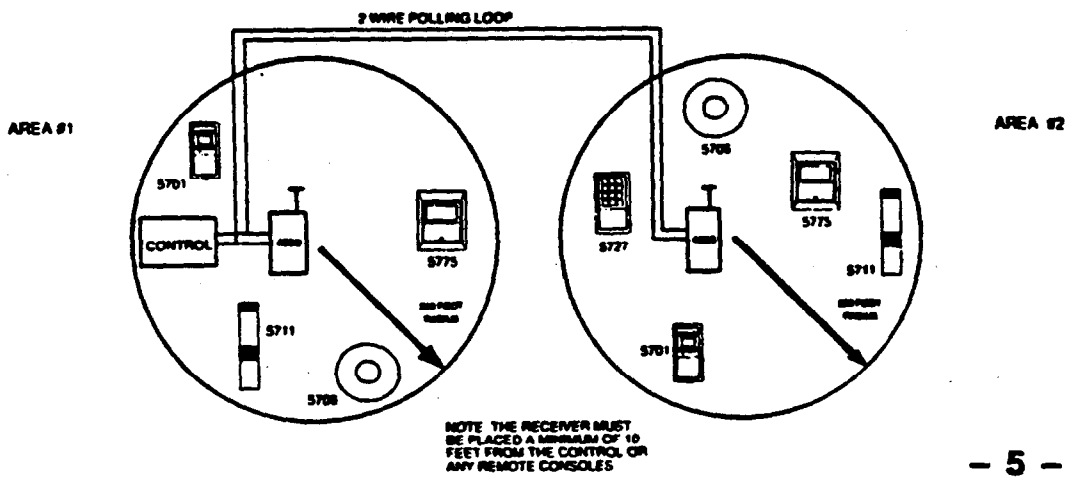
Each Receiver and transmitter used must be enabled as an RF device when programming the control. In addition, two supervisory check-in intervals and various other RF options must be programmed. Refer to the VISTA XM Technical Reference Manual for complete programming information.

A display of "CHECK" accompanied by a display of one or more zone ID numbers indicates that a problem exists with the transmitters assigned to those zones. First check that the zones are intact and make them so if they are not. If the problem has been corrected, enter the code + OFF to clear the display.

A display of "CHECK" accompanied by zone ID 88, 89, 90 or 91 indicates a problem with the Receiver. Refer to the Technical Reference Manual for troubleshooting information.

A display of "LO BAT" ("BAT" for 4130XM/4137) and a zone ID indicates a low battery condition in that transmitter.

A display of "4280 SET UP ERROR" ("E8" for 4130XM/4137) indicates that a 4280-8 Receiver is being used in a system with more than 8 RF zones programmed. If this is not corrected, none of the zones in the system will be protected. If more than 8 RF zones are desired, a 4280 Receiver must be used.



INSTALLATION

RECEIVER

Location: The Receiver should be located in a central indoor location, such that optimum RF signal reception from transmitters can be obtained (a high location in the premises is best). The approximate range for transmitters is 200 feet. Do not mount the Receiver to a metal wall, post or girder, and avoid locating near large metal objects such as refrigerators, ranges, storage cabinets, etc.

IMPORTANT! The Receiver must be at least 10 feet from the control panel or any remote consoles to avoid interference from their microprocessors.

Wiring: Run the Control's polling loop wiring to the 4280(s) using twisted pair wire, and make connections to the terminals as shown on page 9, making sure polarity is correct. Depending upon whether or not the polling loop can support the current drain of the Receiver will determine if the wire run is a 2- or 4-wire run.

Maximum polling loop wire runs are as follows: #22 gauge @650' max
#20 gauge @950' max
#18 gauge @1500' max
#16 gauge @ 2400' max

NOTE: The maximum combined polling loop run is 4000'. If using shielded wire, the maximum is 2000'.

CAUTION: If an intercom system is being used, the polling loop wires must be as far from the intercom wiring as possible (minimum 6"). If this spacing cannot be accomplished, shielded wire must be used, otherwise interference on the intercom system might occur. Also note that the maximum total wire supported is cut in half when shielded wire is used.

Blue Jumper: If two Receivers are used, cut the BLUE jumper on the second Receiver. This identifies it as the 2nd Receiver at the control panel.

Power: Each Receiver draws 40mA for its operation. The number of other devices being supported by the polling loop and their individual current drains will determine if the Receiver can draw its power directly from the polling loop. *If 2 Receivers are used, at least one must draw its power from the control's auxiliary power output.*

If the polling loop current's capacity will be exceeded, run an additional pair of wires from the control's 12VDC auxiliary power output to the Receiver's auxiliary power terminals. In this case, the 4280 derives its DC power primarily from the auxiliary power source (signal communication is via the polling loop terminals).

CAUTION: To avoid possible damage to the Receiver, do not connect auxiliary power to the polling loop terminals.

Antenna: Attach the antenna to the antenna terminal as shown. Note that in some earlier models, a two piece antenna was supplied, along with separate instructions for installation.

Sniffer Mode to Select Receiver House ID: To avoid interference from nearby systems, set the DIP switches in the Receiver for House ID "00" (all switches up), then enter your "Installer Code" + [#] + [2]. Note that if two Receivers are being used, *both* must be set to ID "00". The Receiver will now "sniff" out any House IDs in the area and display them at the console. Keeping the Receiver in this mode for about 2 hours will give a good indication of the House IDs being used. To exit the Sniffer Mode, key your installer code + OFF. Set the Receiver's House ID to one not displayed in the Sniffer Mode.

TRANSMITTERS

DIP Switches/ Battery Installation: Set each transmitter's House ID and unique transmitter ID number using the transmitter's DIP switches and referring to the DIP Switch Tables at the end of this document. Install the required battery for each transmitter.

Sniffer Mode to Verify Transmitter House IDs: To check that all transmitters have been set for the proper house ID, set the Receiver to the proper house ID and enter the Installer code + [#] + [3]. Fault each transmitter to cause a transmission and check that each transmitter's ID number is displayed at the console in turn. To exit the Sniffer Mode, simply key your installer code + OFF.

Transmitter Locations: Before mounting each transmitter, first verify that the proposed location is suitable for radio transmission by using the Go/No Go test. When a suitable location is determined, mount each transmitter in accordance with its instructions.

Advisories

Do not place transmitter on or near metal objects, as this will decrease range and/or block transmissions.

When connecting a door/window contact to a 5711, 5711WM, or 5715 transmitter, avoid a wire length of 20-24 inches. This particular length decreases range. A shorter or longer length has no effect.

Go/No Go Test (Patented): This mode helps determine the best location for each transmitter and is activated by putting the system in the TEST mode (security code + [5]) and removing the Receiver's cover. The Receiver's sensitivity is reduced by half. Once transmitters are placed in their desired locations and the approximate length of wire to be run to sensors is connected to the transmitter's screw terminals, open circuit each transmitter. *Do not conduct this test with your hand wrapped around the transmitter.*

If a single Receiver is used, the transmitter ID will be displayed, and the console will beep three times to indicate signal reception. If two Receivers are used, the keypad will beep once if the first received the signal, twice if the second received the signal and three times if both Receivers heard the signal.

If the console does not beep, reorient or move the transmitter to another location. Sometimes moving the transmitter only a few inches may mean the difference between successful and unsuccessful transmissions.

To exit this mode, replace the Receiver's cover, then enter the installer code and press OFF. Note that the Receiver's sensitivity is fully restored when the cover is replaced.

TESTING THE SYSTEM

Power up the entire system and put it in the TEST mode. Check the operation of all wireless transmitters by faulting and restoring each wireless sensor. The control panel console should beep 1-3 times (depending on whether 1 or both 4280s received the transmission) for each fault, and the ID number for the device should be displayed. The display should disappear as the transmitter sensor is restored. Exit TEST mode.

Check the operation of the 5727 wireless keypad by using it to perform all keypad functions, including arming, disarming, chime mode, use of temporary codes and panic keys.

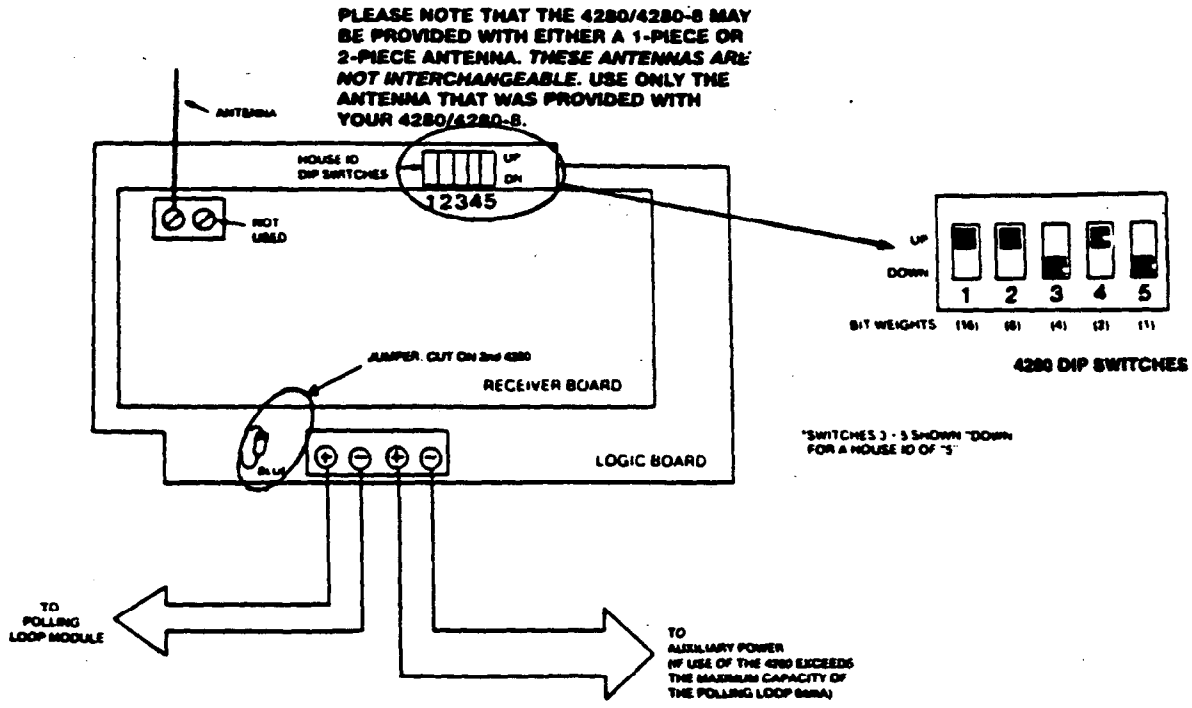
SPECIFICATIONS

Physical:	Width:	4.6" (117mm)
	Height:	7.6" (193mm);
		16.5" (419mm) with antenna
	Depth:	2.5" (64mm)
Electrical:	Voltage:	7-11 volts (with 1kHz modulation from an Ademco polling loop)
		7-14VDC from auxiliary power source.
	Current:	40mA

TURNING THE SYSTEM OVER TO THE USER

1. Explain the significance of the CHECK and LO BAT displays and what should be done when they appear.
2. Encourage the user to find and remedy any unintentionally faulted transmitter so as to avoid having to bypass them when arming the system.
3. Instruct the user in how to change transmitter batteries and how to clear the LO BAT display, should it appear. Make sure the user understands the importance of changing a transmitter battery within 30 days after a LO BAT display appears (within 7 days for transmitters that are activated on a frequent daily basis). Transmitter operation is unpredictable when battery voltage is low, and may result in runaway transmissions, which can block reception of other transmitters.

   Preferably, battery replacement may be scheduled and done by the service company, at least at the rated end of life of the battery or after a LO BAT message appears, whichever occurs sooner.



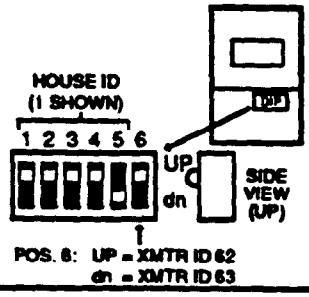
4280 AND 4280-8 RF RECEIVERS

House ID Switch Setting for All Devices Except 5716

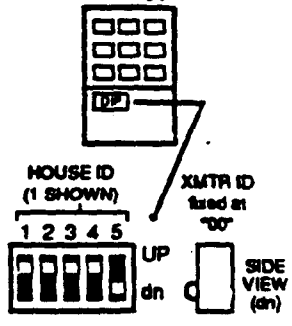
HOUSE ID	DIP SWITCH SETTINGS 1	2	3	4	5
1	UP	UP	UP	UP	dn
2	UP	UP	UP	dn	UP
3	UP	UP	UP	dn	dn
4	UP	UP	dn	UP	UP
5	UP	UP	dn	UP	dn
6	UP	UP	dn	dn	UP
7	UP	UP	dn	dn	dn
8	UP	dn	UP	UP	UP
9	UP	dn	UP	UP	dn
10	UP	dn	UP	dn	UP
11	UP	dn	UP	dn	dn
12	UP	dn	dn	UP	UP
13	UP	dn	dn	UP	dn
14	UP	dn	dn	dn	UP
15	UP	dn	dn	dn	dn
16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

DIP SWITCH TABLES FOR WIRELESS DEVICES

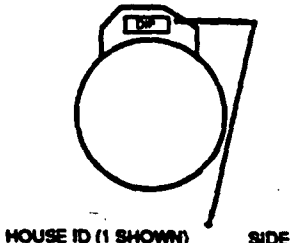
5701 Panic Xmtr.



5727 Keypad



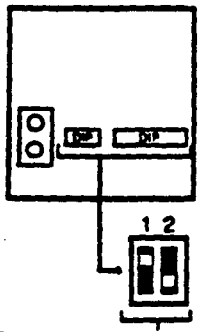
5706 Smoke Detector/Transmitter



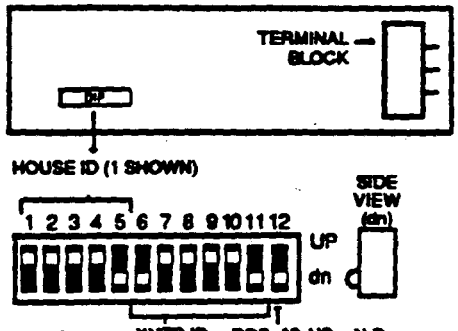
XMTR ID	DIP SWITCH SETTINGS 6	7	8
48	UP	UP	UP
49	UP	UP	dn
50	UP	dn	UP
51	UP	dn	dn
52	dn	UP	UP
53	dn	UP	dn
54	dn	dn	UP
55	dn	dn	dn

DIP SWITCH TABLES FOR WIRELESS DEVICES

5715 Universal Xmtr.



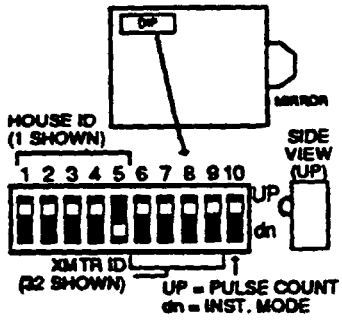
5711/5711WM Door/Window Transmitter



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

XMTR ID	6	7	8	9	10	11
33	dn	UP	UP	UP	UP	dn
34	dn	UP	UP	UP	dn	UP
35	dn	UP	UP	UP	dn	dn
36	dn	UP	UP	dn	UP	UP
37	dn	UP	UP	dn	UP	dn
38	dn	UP	UP	dn	dn	UP
39	dn	UP	UP	dn	dn	dn
40	dn	UP	dn	UP	UP	UP
41	dn	UP	dn	UP	UP	dn
42	dn	UP	dn	UP	dn	UP
43	dn	UP	dn	UP	dn	dn
44	dn	UP	dn	dn	UP	UP
45	dn	UP	dn	dn	UP	dn
46	dn	UP	dn	dn	dn	UP
47	dn	UP	dn	dn	dn	dn
48	dn	dn	UP	UP	UP	UP
49	dn	dn	UP	UP	UP	dn
50	dn	dn	UP	UP	dn	UP
51	dn	dn	UP	UP	dn	dn
52	dn	dn	UP	dn	UP	UP
53	dn	dn	UP	dn	UP	dn
54	dn	dn	UP	dn	dn	UP
55	dn	dn	UP	dn	dn	dn
56	dn	dn	dn	UP	UP	UP
57	dn	dn	dn	UP	UP	dn
58	dn	dn	dn	UP	dn	UP
59	dn	dn	dn	UP	dn	dn
60	dn	dn	dn	dn	UP	UP
61	dn	dn	dn	dn	UP	dn
62	dn	dn	dn	dn	dn	UP
63	dn	dn	dn	dn	dn	dn
BIT VALUE:	32	16	8	4	2	1

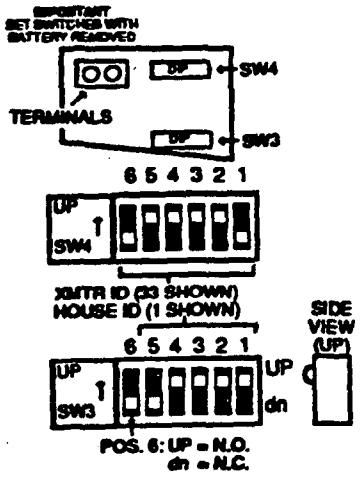
5775 PIR Detector/Transmitter



XMTR ID	6	7	8	9
32	UP	UP	UP	UP
33	UP	UP	UP	dn
34	UP	UP	dn	UP
35	UP	UP	dn	dn
36	UP	dn	UP	UP
37	UP	dn	UP	dn
38	UP	dn	dn	UP
39	UP	dn	dn	dn
40	dn	UP	UP	UP
41	dn	UP	UP	dn
42	dn	UP	dn	UP
43	dn	UP	dn	dn
44	dn	dn	UP	UP
45	dn	dn	UP	dn
46	dn	dn	dn	UP
47	dn	dn	dn	dn

DIP SWITCH TABLES FOR WIRELESS DEVICES

5716 Door/Window Transmitter



HOUSE ID (SW3)

SWITCH TOWARD ARROWHEAD IS "UP"

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

TRANSMITTER ID (SW4)

SWITCH TOWARD ARROWHEAD IS "UP"

TRANSMITTER ID	DIP SWITCH SETTINGS 6	5	4	3	2	1
1	dn	UP	UP	UP	UP	UP
2	UP	dn	UP	UP	UP	UP
3	dn	dn	UP	UP	UP	UP
4	UP	UP	dn	UP	UP	UP
5	dn	UP	dn	UP	UP	UP
6	UP	dn	dn	UP	UP	UP
7	dn	dn	dn	UP	UP	UP
8	UP	UP	UP	dn	UP	UP
9	dn	UP	UP	dn	UP	UP
10	UP	dn	UP	dn	UP	UP
11	dn	dn	UP	dn	UP	UP
12	UP	UP	dn	dn	UP	UP
13	dn	UP	dn	dn	UP	UP
14	UP	dn	dn	dn	UP	UP
15	dn	dn	dn	dn	UP	UP
16	UP	UP	UP	UP	dn	UP
17	dn	UP	UP	UP	dn	UP
18	UP	dn	UP	UP	dn	UP
19	dn	dn	UP	UP	dn	UP
20	UP	UP	dn	UP	dn	UP
21	dn	UP	dn	UP	dn	UP
22	UP	dn	dn	UP	dn	UP
23	dn	dn	dn	UP	dn	UP
24	UP	UP	UP	dn	dn	UP
25	dn	UP	UP	dn	dn	UP
26	UP	dn	UP	dn	dn	UP
27	dn	dn	UP	dn	dn	UP
28	UP	UP	dn	dn	dn	UP
29	dn	UP	dn	dn	dn	UP
30	UP	dn	dn	dn	dn	UP
31	dn	dn	dn	dn	dn	UP
32	UP	UP	UP	UP	UP	dn
33	dn	UP	UP	UP	UP	dn
34	UP	dn	UP	UP	UP	dn
35	dn	dn	UP	UP	UP	dn
36	UP	UP	dn	UP	UP	dn
37	dn	UP	dn	UP	UP	dn
38	UP	dn	dn	UP	UP	dn
39	dn	dn	dn	UP	UP	dn
40	UP	UP	UP	dn	UP	dn
41	dn	UP	UP	dn	UP	dn
42	UP	dn	UP	dn	UP	dn
43	dn	dn	UP	dn	UP	dn
44	UP	UP	dn	dn	UP	dn
45	dn	UP	dn	dn	UP	dn
46	UP	dn	dn	dn	UP	dn
47	dn	dn	dn	dn	UP	dn
48	UP	UP	UP	UP	dn	dn
49	dn	UP	UP	UP	dn	dn
50	UP	dn	UP	UP	dn	dn
51	dn	dn	UP	UP	dn	dn
52	UP	UP	dn	UP	dn	dn
53	dn	UP	dn	UP	dn	dn
54	UP	dn	dn	UP	dn	dn
55	dn	dn	dn	UP	dn	dn
56	UP	UP	UP	dn	dn	dn
57	dn	UP	UP	dn	dn	dn
58	UP	dn	UP	dn	dn	dn
59	dn	dn	UP	dn	dn	dn
60	UP	UP	dn	dn	dn	dn
61	dn	UP	dn	dn	dn	dn
62	UP	dn	dn	dn	dn	dn
63	dn	dn	dn	dn	dn	dn
BIT VALUE:	1	2	4	8	16	32

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.
- 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.
- 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.

WARNING
THE LIMITATIONS OF THIS ALARM SYSTEM (cont.)

- 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 who are located on the other side of a closed or partly open doors. If warning device sound 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 muffle by noise from a stereo, air conditioner or other appliances, or by passing traffic. Finally, alarm warning devices, however loud, may not warn hearing-impaired people or waken deep sleepers.
- 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 10 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 are working properly.

Installing an alarm system may make one eligible for lower insurance rates, 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.

"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 Receiver.
- Move the antenna leads away from any wire runs to the Receiver. \
- Plug the Receiver into a different outlet so that it and the radio or TV 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.

— NOTES —

ADEMCO LIMITED WARRANTY

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

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

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