

Fire Alarm Control/Communicator

User's Manual

5110XM

® ADEMCO

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This manual is a step-by-step guide that will acquaint you with the system's features and benefits. It defines the components and their functions, describes their operation, and instructs you with normal and emergency procedures.

Keep this manual in a convenient place so that you can refer to it as necessary.

SYSTEM OVERVIEW

General Congratulations on your ownership of an Ademco Alarm System. You've made a wise decision in choosing it, for it represents the latest in alarm protection technology today, including microcomputer technology to monitor all system status. Ademco is the world's largest manufacturer of alarm systems and millions of premises are protected by Ademco systems.

Your system is a UL Listed commercial fire alarm control/communicator. It monitors, on an around-the clock basis, the various fire alarm warning, emergency alarm warning and fire sprinkler system supervisory sensors that have been installed in your system. When the control detects an alarm, supervisory, or trouble condition, it automatically triggers an on-premises warning indication and transmits a message to a central station over the telephone line so that appropriate action can be taken.

The control features a built-in warning buzzer and LED indicators which provide the on-premises warning indication. In addition, your system may include an optional remote keypad and/or optional external alarm warning sounders which will provide additional on-premises warning indications. Please disregard references to these devices in the text that follows, if they were not installed in your system.

Zones Your system has five protection zones. Your installer has assigned each of your system's sensing devices to one of these zones. For example, warehouse smoke detectors may have been assigned to zone 01, a fire sprinkler water valve supervisory switch may have been assigned to zone 02, etc.. If a remote keypad was installed in your system, it will display these zone numbers when an alarm, supervisory or trouble condition is detected, so that the nature and location of the fault can be pinpointed..

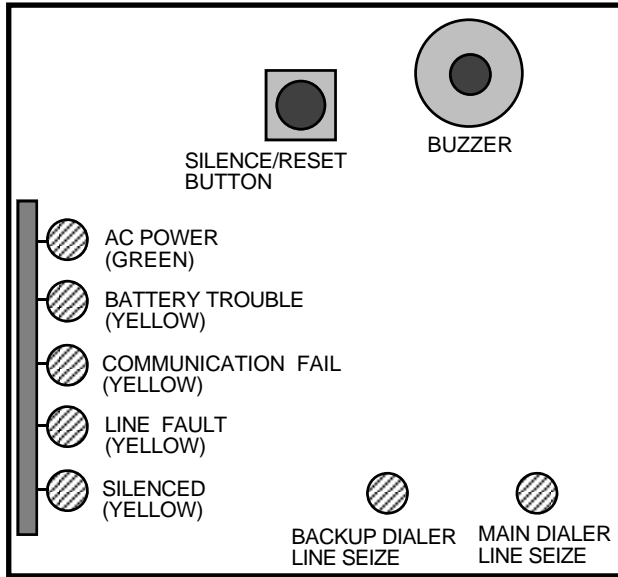
SYSTEM OVERVIEW

- Fire & Emergency Protection** The fire and emergency protection portions of your system are always on and will sound an alarm if an alarm condition is detected.
- Alarms** When an alarm occurs, the control's buzzer, the keypad and external sounders will sound, and a message at the keypad will identify the zone(s) causing the alarm. In addition, an alarm message will be sent to the connected central monitoring station. You may stop the sound by pressing the SILENCE/RESET button at the control, or by entering the OFF sequence (user code + OFF key) at your keypad .
- Memory Of Alarm** When an alarm, supervisory or trouble condition occurs, the keypad displays the number(s) of the zone(s) that caused the problem, and displays the type of condition present (ex. Fire, Alarm, Supv., Check). The display remains until it is cleared by entering the OFF sequence (user code + **OFF** key) a second time or by pressing the SILENCE/RESET button a second time if no keypad is present.

ABOUT THE BUILT-IN INDICATORS

The LED indicators, SILENCE/RESET button and WARNING buzzer (shown below) are located on the control's main board inside the control's enclosure. The AC POWER, BATTERY TROUBLE, COMMUNICATION FAIL, LINE DEFAULT and SILENCED LED indicators are visible through a viewing window on the door of the enclosure. The enclosure door must be opened with the supplied key to gain access to the SILENCE/RESET button.

LED Indicators



- AC POWER.....Lights when AC power is present. Turns off when AC power is low or not present and system is operating from battery power.
- BATTERY TROUBLE.....Lights when battery power is low or disconnected. Turns off when battery is OK.
- COMMUNICATION FAILURE.....Lights when attempts to transmit a message to the central station have failed. Remains unlit when there are no problems with central station message transmission.
- LINE FAULTLights when either the main or back-up phone lines are faulted. Remains unlit when both phone lines are okay.
- SILENCED.....Lights when the built-in warning buzzer, the remote keypad buzzer and external alarm sounders have been silenced. Otherwise remains unlit.

Warning Buzzer	Produces slow on/off pulsing sound for fire alarms, steady sound for emergency alarms, and rapid on/off pulsing sound for supervisory and trouble conditions.
Silence/Reset Button	Press to silence the built-in warning buzzer, the remote keypad warning buzzer and the external alarm sounder. A second press resets faulted smoke detectors and resets LED indicators if associated fault conditions have been corrected.
Main Dialer Line Seize	Lights when control is transmitting a message to the central station on the main phone line.
Backup Dialer Line Seize	Lights when control is transmitting a message to the central station on the backup phone line.

ABOUT THE OPTIONAL KEYPADS

General The keypads feature a telephone style (digital) keypad and a Liquid Crystal Display (LCD) which shows the nature and location of all occurrences.

The keypads feature a built-in sounder which emits the same alarm sounds as the control's built-in warning buzzer during alarm conditions.

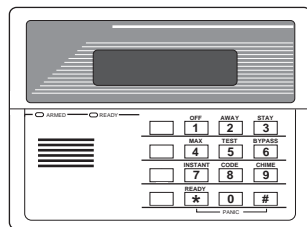
The keypad's display screen displays the same indications as the control's built-in LED indicators, and in addition, displays the zone number of faulted zones as well as the type of fault (i.e. alarm, supervisory or trouble) present. The telephone style keypad keys allow entry of commands for silencing the warning sounds, resetting faulted smoke detectors, activating various system tests, etc.

Keypad Displays There are two basic types of keypad displays, Alpha and Fixed-Word, either of which may have been used in your system.

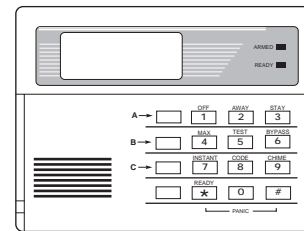
- **Alpha Keypad Displays** feature a 2-line, 32 character alphanumeric Liquid Crystal Display (LCD) which can display the nature and location of all occurrences in friendly English.
- **Fixed-Word Keypad Displays** are functionally similar to the Alpha Keypads, except that their LCD display uses pre-designated (fixed) words to identify the nature and location of occurrences.

Unless stated otherwise, all commands and procedures described herein apply equally to all keypads.

Alpha Keypad

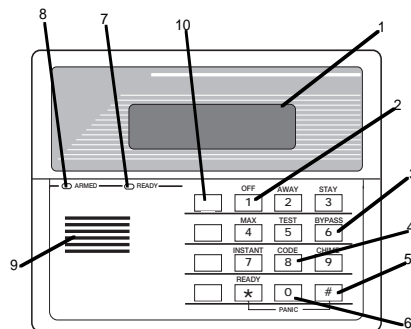


Fixed-Word Keypad



FUNCTIONS OF THE REMOTE KEYPAD

1. **DISPLAY WINDOW:** Displays zone number and system status messages.
2. **1 OFF Key:** Silences audible alarm, supervisory and trouble sounds, and clears visual display after problem's correction.
3. **6 BYPASS Key:** Removes individual protection zones from being monitored by the system.
4. **8 CODE Key:** Used to assign additional 4-digit user codes.
5. **# Key:** Used to activate fire drill.
(enter user 2's code + # + 69)
6. **0-9 Keys:** Used to enter your 4-digit user code, which must be entered before pressing the OFF, BYPASS, CODE or [#] keys.
7. **READY INDICATOR:** Not used with this system.
8. **ARMED INDICATOR:** Not used with this system.
9. **INTERNAL SOUNDER:** Sound is: *slow on/off pulsing* for fire alarms, *steady dual-tone* for emergency alarms, and *rapid on/off pulsing* for supervisory and trouble conditions.
10. **A, B, C EMERGENCY Keys:** Your installer may have programmed these keys for manual activation of fire or emergency alarms. **Note:** Other keys may be available for emergency functions (see REMOTE KEYPAD EMERGENCY KEYS section).



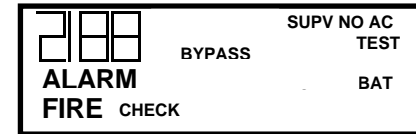
TYPICAL ALPHA KEYPAD

Fixed-Word Keypads are functionally similar, except for screen displays.

IMPORTANT! When entering codes and commands, sequential key depressions must be made within 2 seconds of one another. If 2 seconds elapses without a key depression, the entry is aborted and must be repeated from its beginning.

FIXED-WORD KEYPAD DISPLAYS

- FIRE** Appears when a fire alarm is detected. Accompanied by a display of the zone # in alarm.
- ALARM** Appears when any type of alarm is detected. "FIRE" also appears when a fire alarm is detected. Accompanied by a display of the zone # in alarm.
- SUPV** Appears when a fire sprinkler system supervisory condition is detected. Accompanied by a display of the zone # having the supervisory condition.
- CHECK** Appears when a fire zone wiring fault is detected at any time. Also appears when certain system problems such as phone line problems are detected. Accompanied by a display of the zone # in trouble.
- AC** Appears when AC power is present.
- NO AC** Appears when AC power is low, or not present. System is operating from backup battery power.
- BAT** Appears when backup battery is low or disconnected.
- TEST** Appears when the system is operating in one of its test modes (such as the fire drill test mode).
- BYPASS** Appears when one or more zones have been bypassed and are no longer operational.



FIXED-WORD DISPLAY

REMOTE KEYPAD USER CODES

General If your system has a remote keypad installed, your installer will have programmed a 4-digit user code (known as User Number 2 code) that can be entered at your keypad to silence/reset alarms, bypass protection zones and activate the fire drill test. This code may also be used to assign up to four other user codes (known as User Number 3–6 codes).

The User Number 3–6 codes are intended for users who need limited and/or temporary control over system operation. These codes can perform the same functions as the User Number 2 code *except* for assigning user codes and activating the fire drill test.

To Assign, Change, or Delete User Codes

User Number 2 can change, but not delete, his/her own code and can assign, change, or delete codes for User Numbers 3–6.

User Numbers 3–6 cannot assign, change, or delete user codes.

1. Enter the User Number 2 code and press the **CODE** key.
2. Enter a single-digit User Number (2–6) for the user whose code is to be assigned, changed, or deleted.
3. ***If assigning or changing a user's code***, enter the new 4-digit code for that user. The keypad will beep once, indicating that the new code has been accepted.

If deleting a user's code, perform steps 1 and 2 and then stop. After a few moments the keypad will beep once, indicating that the existing code has been deleted.

REMOTE KEYPAD EMERGENCY KEYS

Using Emergency Keys (for manually activating silent and/or audible alarms)

Your installer may have programmed the keypad's A, B, or C keys to allow manual activation of fire and/or emergency alarms. The functions that might be programmed are: Fire, Silent Emergency, Audible Emergency, and Personal Emergency.

A fire alarm sends a fire alarm message to the central station and uniquely sounds at the control and at keypad(s) and external bells and sirens. A FIRE message plus a zone number (see table on next page) is also displayed on the keypad.

A silent emergency sends a silent alarm signal to the central station, *but there is no audible alarm or visual display.*

An audible emergency sends a signal to the central station and sounds a loud, steady alarm at the control and at your keypad(s) and at any external sounders that may be connected. An ALARM message plus a zone number (see table on next page) is also displayed on the keypad.

A personal emergency alarm sends an emergency message to the central station and sounds at the control and at keypad(s), but not at external bells or sirens. An ALARM message plus a zone number (see table on next page) is also displayed on the keypad.

TO MANUALLY ACTIVATE A FUNCTION AT ANY TIME OF DAY OR NIGHT

(SEE TABLE AND DIAGRAM ON NEXT PAGE)

Press the programmed **A**, **B**, or **C** emergency key for at least two seconds,

or alternatively,

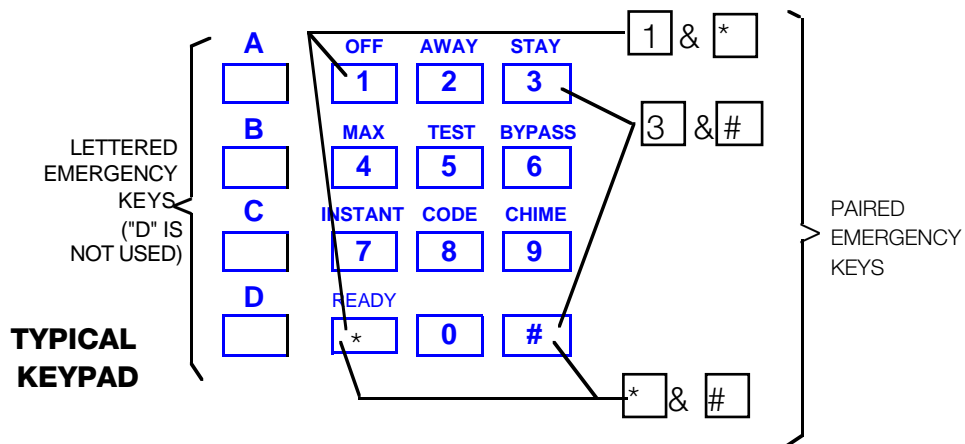
Press *both* keys of the corresponding **1 & *** (A), *** & #** (B), or **3 & #** (C) emergency key pair at the same time.

REMOTE KEYPAD EMERGENCY KEYS

SEE YOUR INSTALLER
AND NOTE HERE
THE KEY(S) & FUNCTION(S)
PROGRAMMED
FOR YOUR SYSTEM

CHECK IF ACTIVE	EMERG. KEY(S)	PROGRAMMED FUNCTION	ZONE NUMBER
<input type="checkbox"/>	[A]	___ FIRE, ___ SILENT, ___ AUDIBLE, ___ PERSONAL	95
<input type="checkbox"/>	[B]	___ FIRE, ___ SILENT, ___ AUDIBLE, ___ PERSONAL	07
<input type="checkbox"/>	[C]	___ FIRE, ___ SILENT, ___ AUDIBLE, ___ PERSONAL	96
OR			
<input type="checkbox"/>	[1] & [*]	___ FIRE, ___ SILENT, ___ AUDIBLE, ___ PERSONAL	95
<input type="checkbox"/>	[*] & [#]	___ FIRE, ___ SILENT, ___ AUDIBLE, ___ PERSONAL	07
<input type="checkbox"/>	[3] & [#]	___ FIRE, ___ SILENT, ___ AUDIBLE, ___ PERSONAL	96

• KEY [D] ON YOUR KEYPAD IS NOT ACTIVE HERE.



NORMAL STANDBY OPERATION

Your system provides the following indications when in normal operation and there are no alarm, supervisory, or trouble conditions present:

- The control's AC POWER LED is lit.
- The control's built-in buzzer and keypad warning buzzer and external alarm sounders are off.
- The Alpha keypad's LCD displays "SYSTEM NORMAL".



- The Fixed-Word keypad's LCD displays "AC".



FIRE ALARM PROTECTION

General Your system may have sensors which detect fire alarm conditions such as smoke detectors, heat detectors, sprinkler waterflow sensors, etc. Your system monitors these sensors 24 hours a day for continuous protection and provides a number of indications when a fire alarm condition is detected.

In Case Of Fire

WHEN A FIRE ALARM CONDITION IS DETECTED, EVACUATE ALL OCCUPANTS FROM THE PREMISES IMMEDIATELY AND NOTIFY YOUR LOCAL FIRE DEPARTMENT.

Your system provides the following indications when a fire alarm condition is detected:

- The control's buzzer and keypad buzzer produces a slow on/off pulsing sound.
- The external fire alarm sounders produce either:
 a steady sound or a pulsing sound,
depending on what your installer selected (check the appropriate box).
- The keypad LCD displays the word "FIRE" (Alpha) or "FIRE ALARM" (Fixed-Word) along with the number of the zone in alarm.



ALPHA



FIXED-WORD

- A fire alarm message is sent to the central station.

If your system has a keypad with a FIRE alarm emergency key, then these indications may be manually triggered by pressing this key for at least 2 seconds, (or the corresponding emergency key pair), should you become aware of a fire emergency before your detectors sense the problem.

FIRE ALARM PROTECTION

Silencing and Resetting a Fire Alarm

To silence the control's buzzer, the keypad buzzer and external alarm sounders:

Press the control's SILENCE/RESET button or enter your User Code followed by the OFF key at the keypad.

The control's "SILENCED" LED lights and the keypad's LCD will display "FIRE ALARM SILENCED" (Alpha) or "SF" (Fixed-Word) to indicate that a fire alarm condition may still be present. The Alpha keypad will display the number of the zone in alarm as a Memory of Alarm indication. The fixed-word keypad alternates the zone number in alarm with the "SF" display.



ALPHA



FIXED-WORD

To reset your system's smoke detectors and the keypad Memory of Alarm display (after heat or smoke is no longer present):

First determine and correct the cause of the fire alarm condition (e.g., fan smoke from the smoke detector chamber, reset the pull station, etc.) and then:

Press the control's SILENCE/RESET button again or re-enter your User Code plus the OFF key at the keypad.

EMERGENCY AND 24 HOUR NON-FIRE ALARMS

General

*Except for silent alarms

Your system may have sensors which detect non-fire related alarm conditions, such as the unauthorized opening of a stock room door, the triggering of an HVAC (Heating, Ventilating, or Air Conditioning) temperature sensor, the pressing of a holdup alarm button, etc. Your system may provide some or all of the indications listed below, depending on what your installer selected to occur when one of those conditions is detected.

If your system's keypad has any active emergency alarm key(s) (see *REMOTE KEYPAD EMERGENCY KEYS* section) these indications may be manually triggered by pressing the appropriate emergency key.

- The control's buzzer and keypad buzzer both produce a steady sound*.
- The external alarm sounders produce a steady sound*.
- The keypad LCD (Fixed-Word) displays the word "ALARM" and the zone number in alarm. Alpha keypads also display a description of the zone in alarm*.



ALPHA



FIXED-WORD

- An emergency alarm message is sent to the central station.

Silencing and Resetting an Emergency Alarm

To silence the control and keypad buzzers and external alarm sounders:

Press the control's SILENCE/RESET button or enter your User Code + the OFF key.

The keypad's LCD will display the number of the zone in alarm as a Memory of Alarm indication.

To reset the keypad alarm display and turn off the SILENCED LED at the control: First correct the cause of the alarm condition, and then:

Press the SILENCE/RESET button again or re-enter your User Code, followed by the OFF key.

BYPASSING PROTECTION ZONES

Using the 6 BYPASS Key

This feature can only be used if a remote keypad has been installed with the system. User code numbers 2-6 can only be used to bypass emergency and 24 hour non-fire protected zones.

This key is used when you want to bypass one or more zones, thus leaving them intentionally unprotected. For example, a protected stock room door can be bypassed when it is necessary to open the door without causing an alarm. To bypass an emergency zone, do the following.


1. Enter your user code and press the **BYPASS** key.
2. Enter zone number(s) for the zone(s) to be bypassed (e.g., 02, 03, etc.). *Single digit zone numbers must be preceded by a zero.*
3. When finished, the keypad will momentarily display a "Bypass" message for each bypassed zone number. Wait for these zones to be displayed, to confirm their bypass.
4. A bypass message is sent to the central station.

All emergency zone bypasses are removed when an OFF sequence (user code plus OFF) is performed.

TYPICAL MOMENTARY DISPLAYS OF BYPASSED ZONE

**BYPASS 03 FRONT
UPSTAIRS STORAGE**

ALPHA

 **BYPASS** AC

FIXED-WORD

SUPERVISORY CONDITIONS

General If your building has a fire sprinkler system, your installer may have installed a sensor which monitors the sprinkler system (e.g., to determine whether the main water gate valve is open or that there is adequate water pressure, etc.). Your system provides the following indications when a supervisory condition is detected.

CALL YOUR INSTALLER IMMEDIATELY FOR SERVICE WHEN A SUPERVISORY INDICATION APPEARS!

- The control's buzzer and the keypad buzzer both produce a rapid on/off pulsing sound.
- The keypad LCD (Fixed-Word) displays the word "SUPV" and the number of the zone with the supervisory condition. Alpha keypads also display a description of the zone.



ALPHA



FIXED-WORD

- A supervisory message is sent to the central station.

Silencing and Resetting a Supervisory Indication

To silence the control and keypad buzzers:

Press the control's **SILENCE/RESET** button or enter your **User Code**, + the **OFF** key

The keypad's LCD will display the number of the zone having the supervisory condition as a Memory indication.

To reset the keypad supervisory display: First have the cause of the indication corrected, and then:

Press the **SILENCE/RESET** button again or re-enter your **User Code**, followed by the **OFF** key.

TROUBLE CONDITIONS

General Your system monitors each of your protection zones and various aspects of system operation for problems such as wire breaks, loss of AC power, faulted telephone lines, etc., which compromise proper alarm signaling operation. Your system provides the following indications when one of these problems is detected. **CALL YOUR INSTALLER IMMEDIATELY FOR SERVICE, WHEN ANY OF THESE INDICATIONS APPEAR FOR A CONDITION THAT CANNOT BE CORRECTED BY YOU!**

- The control's buzzer and keypad buzzer both produce a rapid pulsing sound.
- The controls AC POWER LED turns off and the keypad LCD displays "AC LOSS" (Alpha) or "NO AC" (Fixed-Word) when AC power is low or not present.
- The control's BATTERY TROUBLE LED lights and the keypad LCD displays "SYSTEM LO BAT" (Alpha) or "BAT" (Fixed-Word) when your system's back-up battery is low or disconnected.
- The controls COMM FAIL LED lights and the keypad LCD displays "COMM FAILURE" (Alpha) or "FC" (Fixed-Word) when attempts to send a message to the central station have failed.
- The keypad LCD (Fixed-Word) displays "CHECK" accompanied by a protection zone number (1–5) or system zone number (6–12) when there is a zone or system related problem. Alpha keypads also display a description of the zone. The control's LINE FAULT LED lights if the problem is with the telephone lines.



ALPHA



FIXED-WORD

TROUBLE CONDITIONS

- A trouble message is sent to the central station.

Note: If your keypad LCD displays "0C" for more than 5 minutes, then it is not receiving signals from the control. CALL YOUR INSTALLER IMMEDIATELY FOR SERVICE.

Silencing and Resetting a Trouble Indication

To silence the control and keypad buzzers:

Press the control's
SILENCE/RESET button or enter
your User Code, + the OFF key.

The keypad's LCD will display the number of the zone in trouble as a Memory indication.

To reset the keypad trouble display: First have the cause of the trouble condition corrected, and then:

Press the SILENCE/RESET button
again or re-enter your User Code,
followed by the OFF key.

ACTIVATING A FIRE DRILL TEST

Using the
+ 6 + 9 Keys

This feature can be activated only while no alarm, supervisory, or trouble condition is present.

This test requires that a keypad and external fire alarm sounder be installed with the system.

Note: Only User Number 2's code can activate this test.

This test activates the external fire alarm sounders for the purpose of conducting a fire alarm drill. Your system will remain operational for fire alarm signaling while this test is active (although no message will be sent to the central station unless an actual alarm occurs).

- **To activate the Fire Drill Test:**

Enter User Number 2's code, then press the # + 6 + 9 keys.

The keypad LCD will display "FIRE DRILL ACTIVE (Alpha) or "TEST dF" (Fixed-Word) and the external fire alarm sounders will produce either a steady or a pulsing sound while this test is active, depending on what your installer selected.

**FIRE DRILL
ACTIVE**

ALPHA

dF AC
TEST

FIXED-WORD

- **To terminate the Fire Drill Test:**

Enter any User Code, followed by the OFF key.

Your system will also automatically terminate this test if an alarm, supervisory or trouble condition is detected while it is activated.

QUICK GUIDE TO SYSTEM FUNCTIONS

FUNCTION	PROCEDURE	COMMENTS
Silence Alarm, Supervisory or Trouble sounds	Press the SILENCE/RESET button or Enter user Code + OFF key.	SILENCED LED lights. Memory of fault remains until cleared. Keypad displays # of faulted zone.
Reset Smoke Detectors & Displays	Press the SILENCE/RESET button a second time or Re-enter user Code + OFF key.	Will reset only if fault corrected.
Manually Trip Emergency Alarms	Press key [A], [B], or [C] for at least 2 sec., or press keys [1]&[Q], or [Q]&[#], or [3]&[#], both at same time.	Key(s) must be enabled by installer.
Bypass Emergency Zone(s)	<u>To bypass</u> , enter user code + BYPASS key + zone number(s) (use 2-digit entries). <u>To remove bypass</u> , enter user code + OFF key.	Bypassed zones will not cause an alarm if violated.
Fire Drill Test	<u>To activate</u> : Enter User Number 2's code + # + 6 + 9. <u>To turn off</u> : Enter any user code + OFF key.	Activates external fire alarm sounders.
Assign, change, or delete user code.	<u>To assign or change</u> : Enter User Number 2's code + CODE key + user number (2–6) + new code.	<u>To delete</u> : Enter User Number 2's code + CODE key + user number (3–6) and stop. Note: User Number 2 can change but not delete his/her own code.

SUMMARY OF AUDIBLE/VISUAL NOTIFICATION

ALPHA & FIXED-WORD DISPLAY KEYPADS

SOUND	CAUSE	DISPLAY (Fixed-Word displays are shown in parentheses)
SLOW PULSING Keypad and, as selected by installer: <input type="checkbox"/> SLOW PULSING or <input type="checkbox"/> STEADY External,	a. FIRE ALARM b. FIRE DRILL	a. FIRE plus number and descriptor of zone in alarm (FIRE ALARM plus zone #). b. FIRE DRILL ACTIVE (TEST dF)
STEADY Keypad & External	a. AUDIBLE EMERGENCY ALARM	a. ALARM plus number and descriptor of zone in alarm (ALARM plus zone #).
RAPID PULSING Keypad	a. SUPERVISORY b. TROUBLE, Fire zone problem c. TROUBLE, System problem	a. SUPV plus number and descriptor of zone with SUPV condition (SUPV plus zone #). b. CHECK plus number and descriptor of zone (CHECK plus zone #). c. AC LOSS (NO AC), or SYSTEM LOW BAT (BAT), or COMM FAILURE (FC) when associated condition detected.

PROTECTION ZONES LIST

One or more sensing devices will have been assigned by the installer of your alarm system to protection zones 01–05 in your system. For example, fire sensing devices may have been assigned to zone 05, air conditioning temperature sensors to zone 02, and so on.

Zone numbers 07, 95 and 96 represent Keypad "emergency" alarm functions assigned by the installer. Zone numbers 06 and 10–13 report system conditions.

This chart may be used to record the specific assignments for your system's zones 01–05, 07, 95 and 96. Your installer will assist you in recording this information.

PROTECTION ZONE DESCRIPTIONS

Zone	Description
01*	
02*	
03*	
04*	
05*	
06	– Bell Supervision –
07*	Keypad Emergency Key B (or: * & #)
10	– Earth Ground Supervision –
11	– Main Dialer Supervision –
12	– Back-up Dialer Supervision –
13	– Auxiliary Relay Disable –
95*	Keypad Emergency Key A (or: 1 & *)
96*	Keypad Emergency Key C (or: 3 & #)

* To be filled in

FEDERAL COMMUNICATIONS COMMISSION (FCC) Part 15 STATEMENT

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

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

- If using an indoor antenna, have a quality outdoor antenna installed.
- Reorient the receiving antenna until interference is reduced or eliminated.
- Move the 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 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.

IN THE EVENT OF TELEPHONE OPERATIONAL PROBLEMS

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

FEDERAL COMMUNICATIONS COMMISSION (FCC) Part 68 STATEMENT

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

This equipment uses the following jacks: An RJ31X is used to connect this equipment to the telephone network.

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

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

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

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

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

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

This equipment is hearing-aid compatible.

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

WARNING!

THE LIMITATIONS OF THIS ALARM SYSTEM

While this system is an advanced design security system, it does not offer guaranteed protection against burglary or 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:

- Intruders may gain access through unprotected openings or have the technical sophistication to bypass an alarm sensor or disconnect an alarm warning device.
- Intrusion detectors (e.g. passive infrared detectors), smoke detectors, and many other sensing devices will not work without power. Battery operated devices will not work without batteries, with dead batteries, or if the batteries are not put in properly. Devices powered solely by AC will not work if their AC power supply is cut off for any reason, however briefly.
- Signals sent by wireless transmitters may be blocked or reflected by metal before they reach the alarm receiver. Even if the signal path has been recently checked during a weekly test, blockage can occur if a metal object is moved into the path.
- A user may not be able to reach a panic or emergency button quickly enough.
- While smoke detectors have played a key role in reducing residential fire deaths in the United States, they may not activate or provide early warning for a variety of reasons in as many as 35% of all fires, according to data published by the Federal Emergency Management Agency. Some of the reasons smoke detectors used in conjunction with this System may not work are as follows. Smoke detectors may have been improperly installed and positioned. Smoke detectors may not sense fires that start where smoke cannot reach the detectors, such as in chimneys, in walls, or roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level of a residence or building. A second floor detector, for example, may not sense a first floor or basement fire. Moreover, smoke detectors have sensing limitations. No smoke detector can sense every kind of fire every time. In general, detectors may not always warn about fires caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson. Depending upon the nature of the fire and/or the locations 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 protected area approaches the temperature range of 90° to 105°F (32° to 40°C), the detection performance can decrease.

(continued)

(continued) WARNING! THE LIMITATIONS OF THIS ALARM SYSTEM

- 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 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 muffled 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 or waken deep sleepers.
- 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 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 and transmitters are working properly.

Wireless transmitters (used with some systems) are designed to provide long battery life under normal operating conditions. Longevity of batteries may be as much as 4 to 7 years, depending on the environment, usage, and the specific wireless device being used. External factors such as humidity, high or low temperatures, as well as large swings in temperature, may all reduce the actual battery life in a given installation. This wireless system, however, can identify a true low battery situation, thus allowing time to arrange a change of battery to maintain protection for that given point within the system.

Installing an alarm system may make 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.

SERVICING INFORMATION

Your local authorized service representative is the person best qualified to service your alarm system. Arranging a regular program with that person is advisable. Your local service representative is:

NAME: _____ PHONE: _____
ADDRESS: _____

ADEMCO ONE YEAR LIMITED WARRANTY

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

This one year Limited Warranty is in lieu of all other express warranties, obligations or liabilities. THERE ARE NO EXPRESS WARRANTIES, WHICH EXTEND BEYOND THE FACE HEREOF, ANY IMPLIED WARRANTIES, OBLIGATIONS OR LIABILITIES MADE BY SELLER IN CONNECTION WITH THIS PRODUCT, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, ARE LIMITED IN DURATION TO A PERIOD OF ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. ANY ACTION FOR BREACH OF ANY WARRANTY, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY, MUST BE BROUGHT WITHIN 12 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL SELLER BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR UPON ANY OTHER BASIS OF LIABILITY WHATSOEVER, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT. Some states do not allow limitation on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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



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165 Eileen Way, Syosset, New York 11791

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