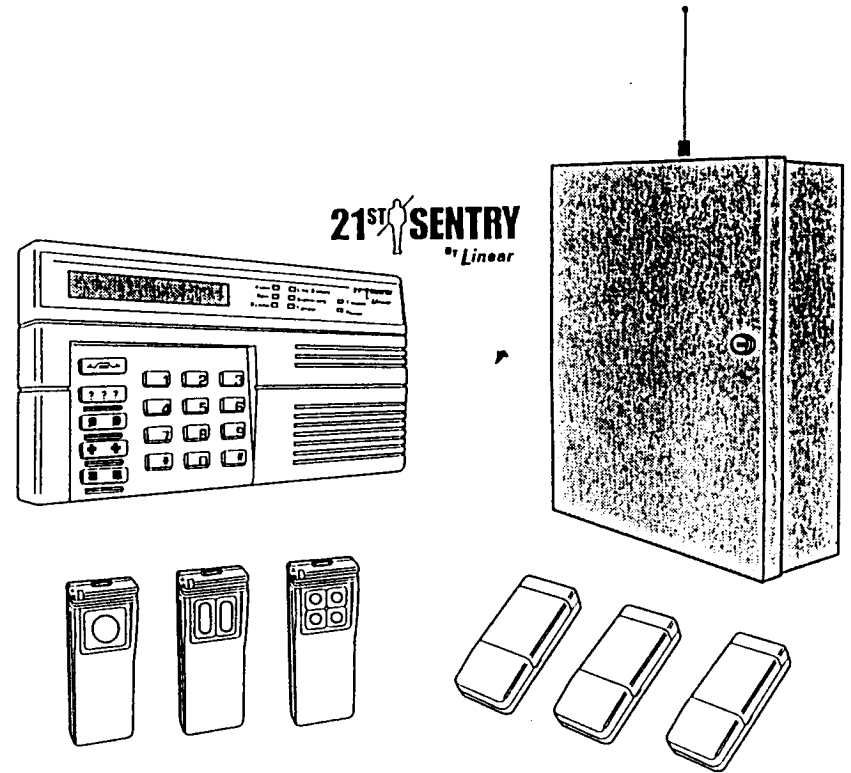


Security System



21ST SENTRY
By Linear

User's Guide



LISTED
HOUSEHOLD FIRE AND
BURGLARY WARNING
SYSTEM CONTROL UNIT

*Also suitable as a
Home Health Care
Control Unit and
Grade A Household
Burglar Alarm Unit.*



SECURITY LEVELS

- 0 = Disarm/Cancel 5 = Night
- 1 = Guard/Cancel 6 = Night Secure
- 2 = Chime 7 = Telephone Test
- 3 = Home 8 = Sensor Test
- 4 = Away

TO ARM THE SYSTEM:

1. Close all protected doors and windows.
- 2A. Press the number for the desired security level and enter your PAC.


- OR -

- 2B. With "Quick Arming" press and hold the number for the desired security level.


IF SYSTEM DOESN'T ARM:

- 1A. Press and hold  for quick bypass or close all protected doors and windows.
(Quick bypass not available in UL Listed installations.)

- OR -

- 1B. Press  and enter sensor number to bypass a single sensor. Repeat for additional sensors.

2. System will arm with open sensors bypassed.

NOTE: Press  to clear keypad at anytime and start over.

TO DISARM SYSTEM:

- 1A. Press 0 for complete disarm, then enter your PAC.
- 1B. Press 1 for burglary disarm, then enter your PAC.

TABLE OF CONTENTS

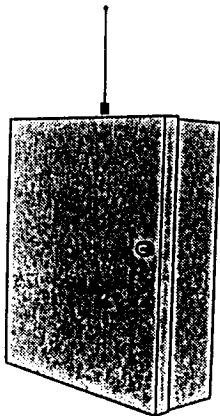
- YOUR 21st SENTRY SYSTEM 2
- WIRELESS SENSORS 4
- ALPHANUMERIC KEYPAD FEATURES 6
- STANDARD KEYPAD FEATURES 8
- WIRELESS KEYPAD FEATURES 10
- SENSOR NUMBERS & ZONES 12
- PERSONAL ACCESS CODES (PAC) 14
 - Duress PAC 14
 - Changing Your PAC 14
 - Temporary PAC 14
 - PAC Programming 15
- SECURITY LEVELS 16
- KEYPAD SOUNDS 18
- ARMING THE SYSTEM 20
 - PAC Arming with the Keypad 20
 - Quick Arming with the Keypad 20
 - Exit Delay 20
 - Remote Arming 21
 - Keyswitch Arming 21
- DISARMING THE SYSTEM 22
 - Entry Delay 22
 - Entry Delay Post-Alarm Warning 22
 - Disarming with the Keypad 22
 - Remote Disarming 23
 - Canceling an Alarm 23
- SENSOR BYPASSING 24
 - Quick Bypass 24
 - Direct Bypass 24
 - Bypass Delay 24
- STATUS KEY 25
 - 24-Hour System Status Display 25
- KEYPAD FEATURES 26
 - Keypad Lockout Timer 26
 - Keypad Lighting 26
 - Secure Entry 26
 - Secure Exit 26
- EMERGENCY KEYS 27
 - Emergency Alarm Keys 27
- SPECIAL KEYPAD COMMANDS 28
- ALARM MEMORY 30
- BACKUP BATTERY POWER 31
- SPECIAL TESTING LEVELS 32
 - To Test the Telephone Connection 32
 - To Test the Bell (or Siren) 32
 - To Test the System Sensors 32
- TROUBLE DISPLAY CODES 34
 - Sensor Trouble Codes 34
 - Control Panel Trouble Codes 34
 - Internal System Trouble Codes 35
- REGULATORY NOTICES 36
 - FCC Notice 36
 - DOC Notice 36
- LINEAR LIMITED WARRANTY 37
 - Important Information 37
 - Evacuation Planning 37

YOUR 21st SENTRY SYSTEM

The heart of the system is the Control Panel. The control panel receives the wireless radio signals from remote system "sensors" that monitor doors, windows, areas, smoke detectors, environmental monitors, panic buttons and more. The Control Panel processes these signals and controls the alarm bell or siren. The built-in digital telephone communicator optionally reports violations and alarms to a central monitoring station.

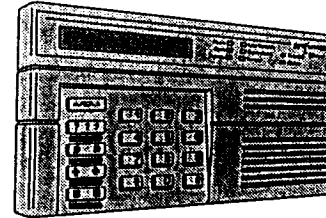
The control panel is operated and controlled by accessory keypads, both wired and wireless types. The keypad(s) allow you to arm and disarm the system, interrogate system and sensor status, sound emergency alarms and more.

Being fully "supervised", the 21st Sentry Security System continuously monitors itself and its sensors. If a problem occurs, such as a low sensor battery, the trouble will be displayed on the keypad and optionally reported to a central monitoring station. This way, trouble can be corrected promptly, maintaining the integrity of the system.



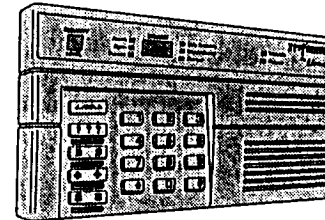
CONTROL PANEL

- ☆ Monitors up to 64 sensors.
- ☆ Controls all alarm sirens and bells.
- ☆ Communicates with system keypads.
- ☆ Contains backup battery for uninterrupted operation during AC power outages.



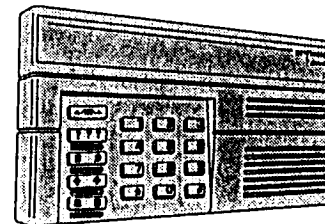
ALPHANUMERIC KEYPAD (Model KD-90)

- ☆ Displays system status and information on two-line English display.
- ☆ Display can be customized by installer for each installation.
- ☆ Shows sensor and system condition on eight LED displays.
- ☆ Sounds system tones, beeps and local alarm sirens.
- ☆ Twelve keys for arming, disarming and changing Security Levels.
- ☆ STATUS and BYPASS keys for interrogating sensors and special arming.
- ☆ Three 24-hour activation keys for fire, emergency and police.



STANDARD KEYPAD (Model K-90)

- ☆ Shows sensor and system condition on eight LED displays.
- ☆ Sounds system tones, beeps and local alarm sirens.
- ☆ Twelve keys for arming, disarming and changing Security Levels.
- ☆ STATUS and BYPASS keys for interrogating sensors and special arming.
- ☆ Three 24-hour activation keys for fire, emergency and police.

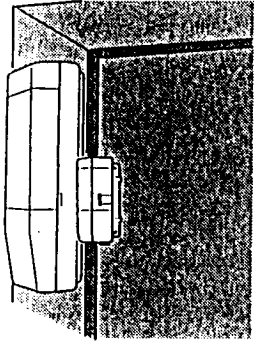


WIRELESS KEYPAD (Model TK-90)

- ☆ Twelve keys for arming, disarming and changing Security Levels.
- ☆ STATUS and BYPASS keys for sounding system Security Level and special arming.
- ☆ Three 24-hour activation keys for fire, emergency and police.
- ☆ Built-in automatic keyboard lighting system.
- ☆ Self-testing; sends its status to the control panel every hour.
- ☆ Internal battery's condition is continuously monitored.
- ☆ Low battery messages sent to the control panel when batteries get low.

WIRELESS SENSORS

Each wireless sensor is powered by self contained batteries. With normal usage, each sensor has a battery life of at least 1 year. Most of the sensor's batteries will last much longer than 1 year. The 21st Sentry control panel can receive low battery signals from the sensors and display them on the keypad(s) so you will know when a battery needs replacing.



DOOR/WINDOW SENSOR (Model T-90)

- ☆ Stationary sensor with built-in magnetic switches with adjustable magnet.
- ☆ Monitors opening of door, window, gun cabinet, drawer, garage door, stereo cabinet, etc.
- ☆ May be connected externally to monitor other types of sensors and conditions.
- ☆ Self-testing; sends its status to the control panel every hour.
- ☆ Internal lithium battery's condition is continuously monitored.
- ☆ Low battery messages sent to the control panel when batteries get low.

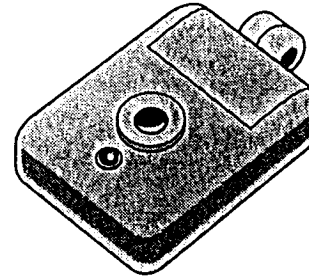
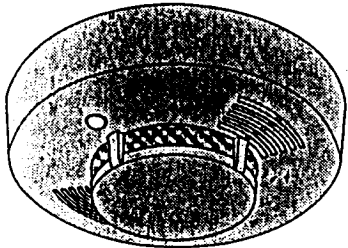
MOTION DETECTOR (Model 50S40A)

- ☆ Uses passive infrared heat detection to sense motion.
- ☆ Sends message to control panel when monitored area is entered.
- ☆ Self-testing; sends its status to the control panel every hour.
- ☆ Internal 9-volt lithium battery condition is continuously monitored.
- ☆ Low battery messages sent to the control panel when battery gets low.

X **NOTE: Not tested for UL burglary installations.**

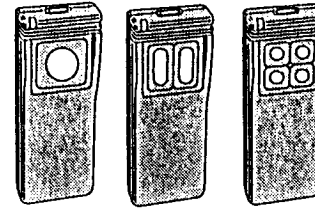
SMOKE DETECTOR (Model TSD-90)

- ☆ High quality smoke detector monitors areas for the presence of smoke.
- ☆ Sends fire alarm message to the control panel when smoke is detected.
- ☆ Self-testing; sends its status to the control panel every hour.
- ☆ Internal 9-volt alkaline battery condition is continuously monitored.
- ☆ Sounds local beeps and sends low battery messages to the control panel when battery gets low.



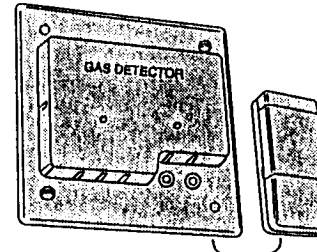
PORTABLE EMERGENCY SENSOR (Model LMT-1)

- ☆ Personal protection that can be activated 24-hours-a-day.
- ☆ Can be worn on neck chain, key chain or carried in pocket.
- X **NOTE: Not tested by UL.**



PORTABLE REMOTE CONTROLS (Models TX-91, TX-92, TX-94)

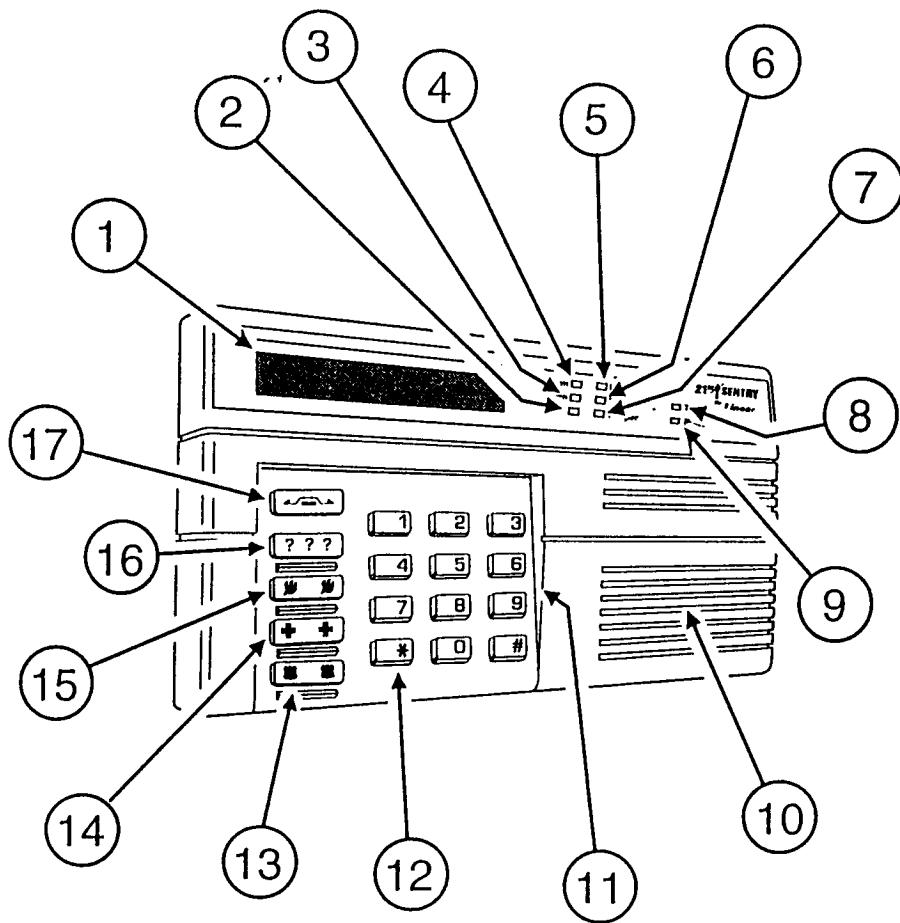
- ☆ One, two and four button portable sensors.
- ☆ Arm and disarm the control panel remotely.
- ☆ Carry one in each vehicle, or on a belt clip.
- ☆ Activate lights, electric door locks and special accessories.



OPTIONAL ENVIRONMENTAL SENSORS

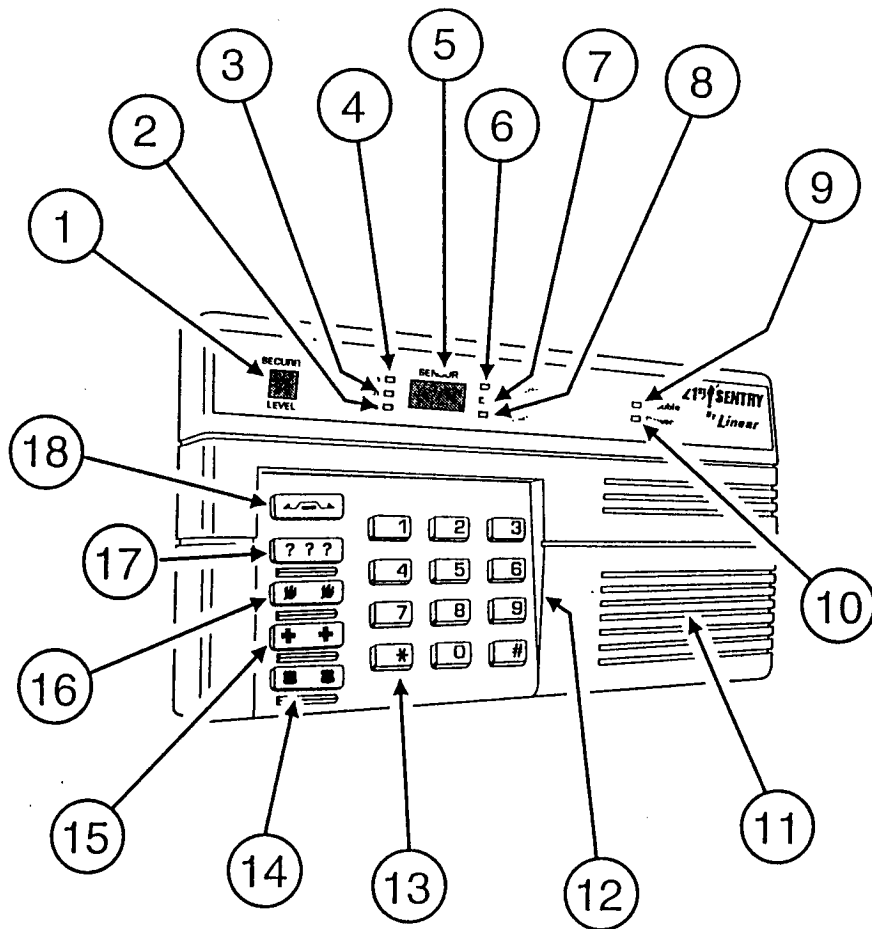
- ☆ Stationary sensor for connection to toxic gas detector, freezer thaw sensor, flood alarm, over-temperature detector, etc.
- ☆ Active 24-hours-a-day.
- ☆ Signals special alarm when environmental trouble occurs.
- ☆ **NOTE: Detector shown is not manufactured or provided by Linear.**
- X **NOTE: Not tested for UL requirements.**

ALPHANUMERIC KEYPAD FEATURES



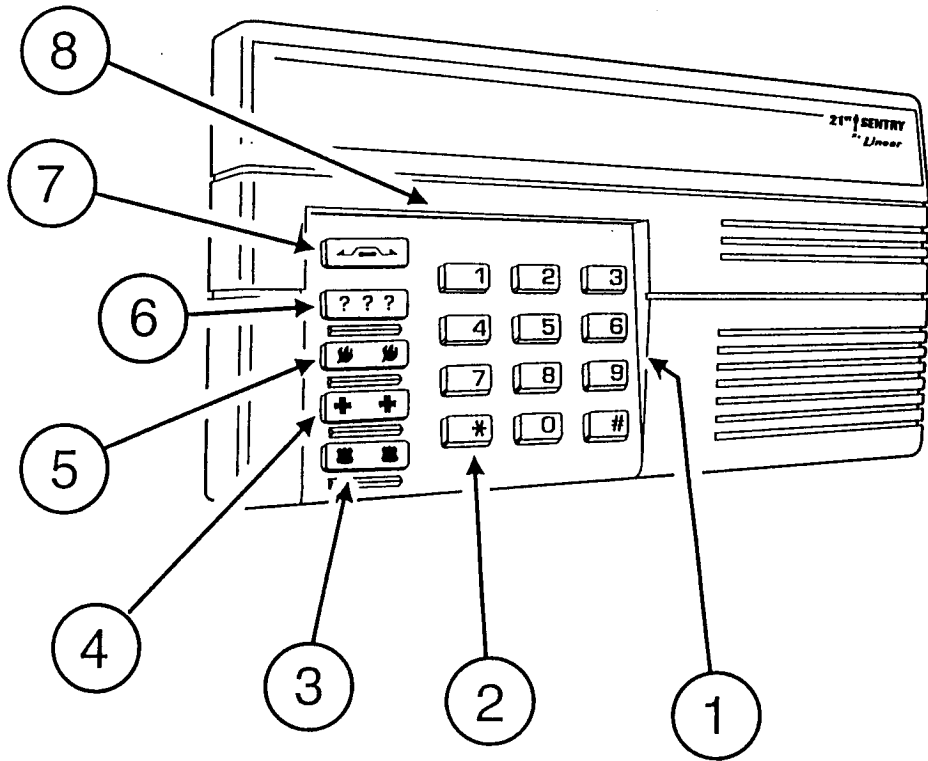
1. **ALPHANUMERIC DISPLAY**
Custom programmed by installer to show sensor number, locations and system status on a two-line alphanumeric display. Display contrast is adjustable by holding the * key and pressing 0-7 (0=high, 7=low).
2. **BYPASS LIGHT**
Lights when the sensor displayed is bypassed and cannot cause an alarm. Lights when any sensor is bypassed if 24-hour system status is active.
3. **OPEN LIGHT**
Lights when the sensor displayed is open. Lights when any sensor is open if 24-hour system status is active.
4. **ALARM LIGHT**
Blinks when there has been an alarm. Stays blinking until the system is armed again. Press "STATUS 96" to display the alarm(s) in order of occurrence.
5. **LOW BATTERY LIGHT**
Lights when the sensor displayed has a low battery. The battery should be replaced. Lights when any sensor has a low battery if 24-hour system status is active.
6. **SUPERVISORY LIGHT**
Lights when the sensor displayed has not reported to the control panel for eight hours. Lights when any sensor has not reported if 24-hour system status is active.
7. **TAMPER LIGHT**
Lights when the sensor displayed has been tampered with. Reset by pressing "STATUS 97". Lights when any sensor is tampered if 24-hour system status is active.
8. **TROUBLE LIGHT**
Blinks when the system senses an abnormal condition. Press and hold the STATUS key for 1 second to display the trouble. Press "STATUS 97" to clear the indication.
9. **POWER LIGHT**
Lights when system is normally powered from AC. Blinks when the system is being powered from its backup battery during an AC power failure or when the battery is low.
10. **KEYPAD SPEAKER**
Sounds the various system tones, beeps and sirens. Volume of each sound can be programmed by the installer independently for each keypad to three different levels or disabled.
11. **NUMERIC KEYBOARD**
Used to enter codes to control and interrogate the system.
12. **"* " KEY**
Clears the keyboard after a wrong key is pressed. Push this key before entering the next keyboard command. Push to clear display and show the current Security Level.
13. **POLICE/HOLD-UP KEY**
Press and hold this key for 3 seconds to trigger the police/hold-up alarm. This key is always active and may be triggered at any time. Use only in case of emergency!
14. **EMERGENCY KEY**
Press and hold this key for 3 seconds to trigger the emergency alarm. This key is always active and may be triggered at any time. Use only in case of emergency!
15. **FIRE KEY**
Press and hold this key for 3 seconds to trigger the fire alarm. This key is always active and may be triggered at any time. Use only in case of emergency!
16. **STATUS KEY**
Press to display and sound the current Security Level. Press and hold for 1 second to display the status of each sensor. Press and enter a two-digit sensor number to display the status of that sensor.
17. **BYPASS KEY**
After arming the system, press and hold for 1 second to bypass all sensors that are open. Press and enter a two-digit sensor number to bypass a specific sensor.

STANDARD KEYPAD FEATURES



1. **SECURITY LEVEL DISPLAY**
Shows the current Security Level of the system (0 thru 8).
2. **BYPASS LIGHT**
Lights when the sensor displayed is bypassed and cannot cause an alarm. Lights when any sensor is bypassed if 24-hour system status is active.
3. **OPEN LIGHT**
Lights when the sensor displayed is open. Lights when any sensor is open if 24-hour system status is active.
4. **ALARM LIGHT**
Blinks when there has been an alarm. Stays blinking until the system is armed again. Press "STATUS 96" to display the alarm(s) in order of occurrence.
5. **SENSOR DISPLAY**
Shows sensor numbers during bypassing, status and alarm memory displays.
6. **LOW BATTERY LIGHT**
Lights when the sensor displayed has a low battery. The battery should be replaced. Lights when any sensor has a low battery if 24-hour system status is active.
7. **SUPERVISORY LIGHT**
Lights when the sensor displayed has not reported to the control panel for eight hours. Lights when any sensor has not reported if 24-hour system status is active.
8. **TAMPER LIGHT**
Lights when the sensor displayed has been tampered with. Reset by pressing "STATUS 97". Lights when any sensor is tampered if 24-hour system status is active.
9. **TROUBLE LIGHT**
Blinks when the system senses an abnormal condition. Press and hold the STATUS key for 1 second to display the trouble. Press "STATUS 97" to clear the indication.
10. **POWER LIGHT**
Lights when system is normally powered from AC. Blinks when the system is being powered from its backup battery during an AC power failure or when the battery is low.
11. **KEYPAD SPEAKER**
Sounds the various system tones, beeps and sirens. Volume of each sound can be programmed by the installer independently for each keypad to three different levels or disabled.
12. **NUMERIC KEYBOARD**
Used to enter codes to control and interrogate the system.
13. **"*" KEY**
Clears the keyboard after a wrong key is pressed. Push this key before entering the next keyboard command.
14. **POLICE/HOLD-UP KEY**
Press and hold this key for 3 seconds to trigger the police/hold-up alarm. **This key is always active and may be triggered at any time. Use only in case of emergency!**
15. **EMERGENCY KEY**
Press and hold this key for 3 seconds to trigger the emergency alarm. **This key is always active and may be triggered at any time. Use only in case of emergency!**
16. **FIRE KEY**
Press and hold this key for 3 seconds to trigger the fire alarm. **This key is always active and may be triggered at any time. Use only in case of emergency!**
17. **STATUS KEY**
Press to display and sound the current Security Level. Press and hold for 1 second to display the status of each sensor. Press and enter a two-digit sensor number to display the status of that sensor.
18. **BYPASS KEY**
After arming the system, press and hold for 1 second to bypass all sensors that are open. Press and enter a two-digit sensor number to bypass a specific sensor.

WIRELESS KEYPAD FEATURES



1. **NUMERIC KEYBOARD**
Used to enter codes to control and interrogate the system.
2. *** KEY**
Clears the keyboard after a wrong key is pressed. Push this key before entering the next keyboard command.
3. **POLICE/HOLD-UP KEY**
Press and hold this key for 3 seconds to trigger the police/hold-up alarm. **This key is always active and may be triggered at any time. Use only in case of emergency!**
4. **EMERGENCY KEY**
Press and hold this key for 3 seconds to trigger the emergency alarm. **This key is always active and may be triggered at any time. Use only in case of emergency!**
5. **FIRE KEY**
Press and hold this key for 3 seconds to trigger the fire alarm. **This key is always active and may be triggered at any time. Use only in case of emergency!**
6. **STATUS KEY**
Press and release to sound the current Security Level from a standard or alphanumeric keypad.
7. **BYPASS KEY**
After arming the system, press and hold for 1 second to bypass all sensors that are open. Press and enter a two-digit sensor number to bypass a specific sensor.
8. **GREEN DOWNLIGHTS**
When any key is pressed on the keypad, bright green downlights illuminate the keys. The lights will remain on for 15 seconds after the last key is pressed. If the downlights flash and the keypad chirps as each key is pressed, the keypad batteries are low.

SENSOR NUMBERS & ZONES

Each sensor installed in your system is programmed to a specific "sensor number" and "sensor zone".

The *sensor number* (01-64) identifies the specific sensor when displayed on the keypad(s) and to the central monitoring station (if system is monitored). This allows pin-point information about any sensor in the system.

The *sensor zone* determines how and when the Control Panel responds to signals from the sensor. Some sensors are armed all the time, others are armed only in certain Security Levels. The sensor's programmed zone determines this.

The sensor zones are:

EXTERIOR ZONE

For perimeter doors and windows.

INTERIOR ZONE

For motion detectors, mat switches, interior doors and other sensors that detect human presence inside the building.

RESTRICTED INTERIOR ZONE

For special interior areas that are not normally occupied during nighttime. Sensors used in this zone would be located in an attic, basement, inside a detached garage or other similar areas.

FIRE ZONE

Continuously armed 24-hour zone for smoke detectors, heat sensors, pull stations, etc. Can also be triggered directly from keypad.

EMERGENCY ZONE

Continuously armed 24-hour zone for personal emergency or other types of emergencies. Can also be triggered directly from keypad or a stationary sensor.

POLICE/HOLD-UP ZONE

Continuously armed 24-hour zone for panic, police or hold-up. Can also be triggered directly from keypad or stationary sensors.

REMOTE ARM/DISARM ZONE

Sensors programmed to this zone can arm and disarm the system. This zone alternately arms the system to Level 4 and disarms the system to Level 1. Automatic bypassing occurs after 45 seconds if other sensors are open.

DELAYED REMOTE EMERGENCY ZONE

Continuously armed 24-hour zone for personal or other types of emergencies. Portable sensor must be activated for 3 seconds to trigger emergency alarm.

DELAYED REMOTE POLICE/HOLD-UP ZONE

Continuously armed 24-hour zone for panic, police or hold-up. Portable sensor must be activated for 3 seconds to trigger panic alarm.

GUARD ZONE

For protecting areas or objects that are not normally entered or moved even when the burglary portion of the system is disarmed. Used for gun cabinets, artworks, museum pieces, liquor cabinets, etc. This zone is also suitable for glass break sensors. Local alarm will sound when this zone is armed; causes central station reports in Level 4 only.

ENVIRONMENTAL TYPE A ZONE

Continuously armed 24-hour zone for environmental sensors (flood, freeze, etc.). Causes local annunciation, alarm and central station reports.

ENVIRONMENTAL TYPE B ZONE

Continuously armed 24-hour zone for environmental sensors (flood, freeze, etc.). Causes local annunciation and alarm but no central station reports.

ENVIRONMENTAL TYPE C ZONE

Continuously armed 24-hour zone for environmental sensors (flood, freeze, etc.). Causes local annunciation only.

CHIME ONLY ZONE

This zone causes a local chime when triggered. Can be used for wireless doorbell, mailbox mail detector, driveway vehicle sensor, etc. Active 24-hours in Security Levels 1, 2 and 3.

HOME AUTOMATION ZONES #1 & #2

These remote control zones can be used to activate various electric devices (lights, appliances, entertainment equipment) that have been connected to the system by the installer.

PERSONAL ACCESS CODES (PAC)

Your Personal Access Code (PAC) is the secret keypad code you select to control your system. After entering the desired Security Level, entering a valid PAC changes the system to that level. PAC codes can be 2 to 5 digits long. Up to 32 different PACs can be programmed.

Duress PAC

A special PAC can be set for a "duress" situation. **This feature can only be used in a monitored system.** If you are forced to disarm the system (at gun point, for example), using the duress PAC disarms the system as normal, with no special indications, but a silent "duress" message is sent to the central monitoring station so help can be sent.

Changing Your PAC

You may change your PAC to a new and different number. To set a new PAC:

- ① Press "#".
- ② Enter your current PAC.
- ③ Press "#".
- ④ Enter the desired new PAC (2 to 5 digits long).
- ⑤ Press "#".
- ⑥ Listen for the accept tones.

Temporary PAC

PAC #1 is the Temporary PAC. This is a special access code that can be programmed for a limited number of uses. This PAC is useful for allowing limited access to the premises for service, maintenance, cleaning, or repair people. The Temporary PAC can be programmed for one to nine uses, or unlimited use. The Temporary PAC can only arm the system to Level 4.

Use the following steps in Security Level 0 or 1 to program a Temporary PAC:

- ① Press "#".
- ② Enter a your PAC (can't be a temporary PAC).
- ③ Press "#".
- ④ Enter a digit from 1 to 9 for the number of times the PAC can be used (disarm then arm is two uses). Entering 0 will allow unlimited use.
- ⑤ Press "#".
- ⑥ Enter the desired Temporary PAC (2 to 5 digits long).
- ⑦ Press "#".

NOTE: Quick arming (holding down a Level number key to arm the system) is not counted as a Temporary PAC use. If you want to give someone just one access to the premises, set the Temporary PAC count to one and have the user Quick Arm when leaving the premises.

To erase a Temporary PAC from Security Level 0 or 1:

- ① Press "#".
- ② Enter a your PAC (can't be a temporary PAC).
- ③ Press "#" "#" "#" "#".

PAC Programming

When your system was installed, your dealer programmed your individual PACs for you. Using the method described under "Changing Your PAC", you may change your own PAC to a different code. There is, however, another method that allows certain individuals with "programming privilege" to change any PAC in the system. There are 32 PACs in the system, numbered 1 through 32. PAC #1 is the temporary PAC.

The following procedure describes how to change any PAC if you have the "programming privilege".

- ① Press "#".
- ② Enter your PAC (programming privilege required).
- ③ Press and hold "#" until the accept tones sound.
- ④ Enter in the two digit PAC number you want to change (the PAC number, not the actual PAC itself).
- ⑤ Press "#" - If number is OK it will be shown on the SENSOR display.
- ⑥ Enter a new PAC number (2 to 5 digits); **Skip this step and enter nothing if you want to delete the PAC.**
- ⑦ Press "#".
- ⑧ Enter six digits to set the new PAC options.

1st digit	Highest arming level allowed (0-8)
2nd digit	Lowest arming level allowed (0-8)
3rd digit	Type of PAC
	0 = normal
	1 = duress (sends duress report when used)
	2 = master (system armed with master can only be disarmed with master)
	3 = arm only
4th digit	Bypass privilege
	0 = bypass allowed
	1 = bypass not allowed
5th digit	Access modes
	0 = no access output
	1 = access output activates
	2 = access only (no level changes)
6th digit	Change PAC privilege
	0 = individuals can change own PAC
	1 = locked, can only be changed by programmer PAC
- ⑨ Press "#".

If all values were entered OK, the accept tones will sound.

Keystroke summary: #YOUR PAC#PAC ID#NEW PAC#NEW OPTIONS#

SECURITY LEVELS

The 21st Sentry Security System provides seven different levels of arming for security and two levels for system testing. Each Security Level arms a specific group of sensor zones. Each Security Level is named for its most common use. When entering each Security Level, the keypad will sound a level change gong, then count a number of beeps to match the selected level.

The Security Levels are:

Disarm/Cancel and Low Security Levels

LEVEL 0 DISARM/CANCEL

(Gong Only)

- ✓ All intrusion detection is off.
- ✓ All 24-hour sensors (fire, panic and environmental) are armed.
- ✓ Disarms system (cancels any alarm in progress).

LEVEL 1 GUARD/CANCEL

(Gong & 1 Beep)

- ✓ Guard Zone is armed and will cause a local alarm only.
- ✓ All intrusion detection is off.
- ✓ All 24-hour sensors (fire, panic and environmental) are armed.
- ✓ Chime Only Zone is active.
- ✓ Disarms system (cancels any alarm in progress).

LEVEL 2 CHIME

(Gong & 2 Beeps)

- ✓ A two-tone "chime" will sound whenever a window or an exterior door is opened.
- ✓ Guard Zone is armed and will cause a local alarm only.
- ✓ All intrusion detection is off.
- ✓ All 24-hour sensors (fire, panic and environmental) are armed.
- ✓ Chime Only Zone is active.

High Security Arming Levels

LEVEL 3 HOME

(Gong & 3 Beeps)

- ✓ All windows and exterior doors are armed.
- ✓ All interior sensors are off.
- ✓ Delayed sensors allow "Secure Entry" when the user enters a PAC and rearms to Level 3, 5 or 6 during the entry delay.
- ✓ "Secure Exit" starts an exit delay for delayed sensors when the user enters a PAC and rearms to Level 3 from Level 3.
- ✓ Guard Zone is armed and will cause a local alarm only.
- ✓ All 24-hour sensors (fire, panic and environmental) are armed.
- ✓ Chime Only Zone is active.

LEVEL 4 AWAY

(Gong & 4 Beeps)

- ✓ All sensors (interior and exterior) are armed.
- ✓ Delayed sensors will allow timed exit and entry of premises.
- ✓ Guard Zone is armed and will cause a local alarm and central station reports.
- ✓ All 24-hour sensors (fire, panic and environmental) are armed.

LEVEL 5 NIGHT

(Gong & 5 Beeps)

- ✓ All windows and exterior doors are armed.
- ✓ Delayed sensors allow "Secure Entry" when the user enters a PAC and rearms to Level 3, 5 or 6 during the entry delay.
- ✓ "Secure Exit" starts an exit delay for delayed sensors when the user enters a PAC and rearms to Level 5 from Level 5.
- ✓ Restricted interior sensors are armed (garage, downstairs interiors, other areas not normally entered at night).
- ✓ Guard Zone is armed and will cause a local alarm only.
- ✓ All 24-hour sensors (fire, panic and environmental) are armed.

LEVEL 6 NIGHT SECURE

(Gong & 6 Beeps)

- ✓ All windows and exterior doors are armed.
- ✓ Delayed sensors activate as "instant" unless "Secure Exit" is used.
- ✓ The system must be disarmed prior to entry or an instant alarm will occur.
- ✓ "Secure Exit" starts an exit delay for delayed sensors when the user enters a PAC and rearms to Level 6 from Level 6.
- ✓ Restricted interior sensors are armed (garage, downstairs interiors, other areas not normally entered at night).
- ✓ Guard Zone is armed and will cause a local alarm only.
- ✓ All 24-hour sensors (fire, panic and environmental) are armed.

SECURITY LEVEL ARMING TABLE													
	EXTERIOR	INTERIOR	RESTRICTED INTERIOR	FIRE	EMERGENCY	POLICE/HOLD-UP	REMOTE EMERGENCY	REMOTE POLICE/H-UP	GUARD ZONE	ENVIRONMENTAL TYPE A	ENVIRONMENTAL TYPE B	ENVIRONMENTAL TYPE C	CHIME ONLY
LEVEL 0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LEVEL 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	▲
LEVEL 2	▲	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	▲
LEVEL 3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	▲
LEVEL 4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	▲
LEVEL 5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	▲
LEVEL 6	*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	▲

✓ = ARMED IN THIS LEVEL
 * = ARMED AS INSTANT IN THIS LEVEL
 ▲ = CHIMES IN THIS LEVEL

Table 1. Security Level Arming Table

KEYPAD SOUNDS

Audible signals are used to sound system status, alert you to an emergency and frighten away an intruder. The different sounds are:

Fire Alarm

Loud, rapid, two-tone siren.

Intrusion Alarm

Loud intermittent siren.

Personal Emergency Sounder

A two-tone high/low chime sound.

Police/Panic Alarm

Loud high/low siren sound.

Environmental Alarm Sounder/Trouble Sounder

A short, single-tone beep repeated at 1 minute intervals. This sound is used for environmental alarms and for sensor/accessory low battery or supervisory trouble. Silence by pressing the * key.

Chime Tones

Low volume two-tone chime which indicates a door or window sensor has been opened when the system is armed in Level 2. Also used as sounder for the Chime Only Zone.

Sensor Test Beep

Loud single-beep heard when testing the sensors in Level 8 (Sensor Test Mode).

Exit Delay Beeps

Short, single-tone beeps repeated at 1 second intervals during the exit delay. An exit delay allows time for you to leave the premises through a door programmed as "delayed". **The premises must be vacated before the exit delay time expires or an alarm will occur.**

Entry Delay Beeps

Short, single-tone beeps repeated at 1/2 second intervals during the entry delay. Entering the protected premises through an exterior door programmed for "delay" will start the entry beeps. **The system must be disarmed before the entry delay time expires or an alarm will occur.**

Entry Delay After Alarm Beeps

Short, two-tone beeps repeated at 1/2 second intervals during the entry delay after an alarm has occurred. **This is to alert you to exercise caution when entering the premises, as the intruder may still be present.**

Accept Tones

A three-tone sound which indicates that the system has accepted a command.

Rejection Tones

Low volume, short two-tone sound which sometimes occurs when a keypad command is entered. It indicates that the command was not directly accepted. Normally this occurs when trying to arm the system with an open sensor. The sensor(s) must be closed or bypassed, then the system will arm.

Level Change Gong

A single gong tone sound that occurs after changing Security Levels.

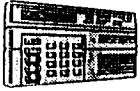
Level Count Beeps

Short, low volume single-tone beeps that come after a level change gong or when the STATUS key is pressed. Count the number of beeps to determine the current Security Level.

Panel Connection Warning Chirps

If the keypad sounds continuous chirps and displays the message "PANEL CONNECTION FAILURE", there is trouble in the connection between the keypad and the control panel. The only way for the user to stop the chirps is to remove the keypad from the wall (pry the bottom edge away from the mounting plate) and disconnect the wiring cable connector. **Call your installer immediately if this happens.**

ARMING THE SYSTEM



PAC Arming with the Keypad

You can arm your system from any keypad by following these simple steps:

- ① Close all protected doors and windows.
- ② Press the number for the desired Security Level and immediately enter your PAC.
- ③ Listen for the level change gong followed by the correct number of level count beeps.

Quick Arming with the Keypad

If your system has been programmed for "Quick Arming" by your installer, you can arm your system without entering a PAC from any keypad by following these simple steps:

- ① Close all protected doors and windows.
- ② Press and hold the number for the desired Security Level.
- ③ Listen for the level change gong followed by the correct number of level count beeps.

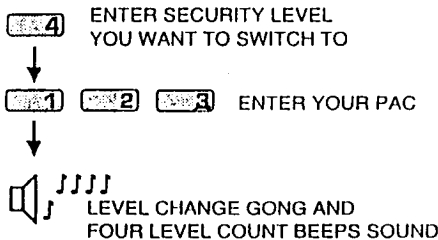
NOTE: If you hear repeated rejection tones after trying to arm the system, one or more protected doors or windows are open. Press STATUS to display the open sensors. Either close the open doors/windows or bypass the sensor(s). If the display shows a door or window open that is actually closed, open and close the door or window to update the display. See the section "Sensor Bypassing".

Exit Delay

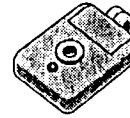
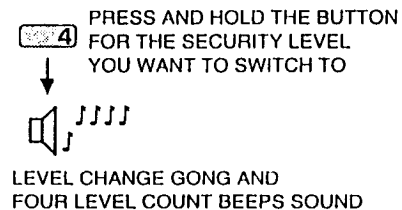
When the system is armed to Level 4, an exit delay starts to allow time for you to leave the premises through a door programmed as "delayed". **The premises must be vacated before the exit delay time expires or an alarm will occur.** Normally, the system is programmed by the installer to sound warning beeps during the exit delay.

ARMING EXAMPLES

PAC ARMING



QUICK ARMING



Remote Arming

If your system is equipped with an arm/disarm remote control you can arm and disarm your system remotely without using the keypad. The remote control can arm your system to Level 4 and disarm the system to Level 1. These are the only two Security Levels that can be accessed with the remote control.

To use the remote control:

- ① Start with system in Level 0 or 1.
 - ② Activate the remote control to arm the system to Level 4.
 - ③ Listen for the level change gong followed by four level count beeps.
- NOTE:** If rejection tones sound, a protected door or window is open. System will automatically bypass and arm after 45 seconds or when the door/window is closed. The exit delay will start after the 45 second auto-bypass delay.

Keyswitch Arming

If your system includes a keyswitch for arming and disarming, you will not be able to bypass sensors from the keyswitch. All door and windows must be closed before arming with the keyswitch (unless the non-UL auto-bypass after arm feature has been programmed by your installer). If the keystations armed light doesn't light and the rejection tones sound after attempting to arm with the keyswitch, go to a keypad and bypass the required sensors.

SECURITY LEVELS

LEVEL 0	DISARM/CANCEL
LEVEL 1	GUARD/CANCEL
LEVEL 2	CHIME
LEVEL 3	HOME
LEVEL 4	AWAY
LEVEL 5	NIGHT
LEVEL 6	NIGHT SECURE

DISARMING THE SYSTEM

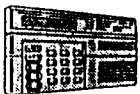
Entry Delay

Entering the protected premises through an exterior door programmed for "delay" will start the entry delay timer. **The system must be disarmed before the entry delay time expires or an alarm will occur.** Normally, the system is programmed by the installer to sound warning beeps during the entry delay. These beeps alert you that an alarm will occur if the system is not disarmed.

Entry Delay Post-Alarm Warning

If the system has had an alarm while you were gone, the entry delay beeps will have a special sound. **This is to alert you to exercise caution when entering the premises, as the intruder may still be present.** After disarming the system, check the alarm memory to see which sensor(s) caused the alarm.

NOTE: The post-alarm warning will also occur during the entrance delay when an environmental alarm is in progress.

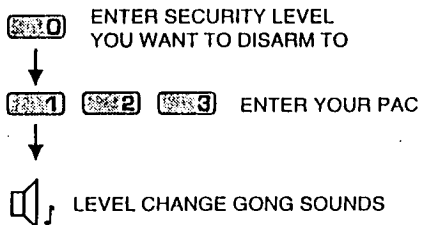


Disarming with the Keypad

You can disarm your system from any keypad by following these simple steps:

- ① Switch to Level 0 or 1 by pressing "0" or "1"
- ② Enter your PAC immediately.
- ③ Listen for the level change gong followed by the correct number of level count beeps (none for Level 0 or one for Level 1).

DISARMING EXAMPLE



Remote Disarming

If your system is equipped with an arm/disarm remote control you can arm and disarm your system remotely without using the keypad. The remote control can arm your system to Level 4 and disarm the system to Level 1. These are the only two Security Levels that can be accessed with the remote control.

To disarm with the remote control:

- ① With system in Level 4 (armed in AWAY) or in Level 2, 3, 5 or 6.
- ② Activate the Remote Arm/Disarm sensor to disarm the system to Level 1.
- ③ Listen for the level change gong followed by one level count beep.

Canceling an Alarm

If an alarm is sounding, cancel the alarm by disarming the system to Security Level 0 or 1. If the system is monitored, a special "Cancel" code is reported to the Central Monitoring Station. This informs the central station that the alarm was caused by subscriber error.

SECURITY LEVELS

LEVEL 0	DISARM/CANCEL
LEVEL 1	GUARD/CANCEL
LEVEL 2	CHIME
LEVEL 3	HOME
LEVEL 4	AWAY
LEVEL 5	NIGHT
LEVEL 6	NIGHT SECURE

SENSOR BYPASSING



BYPASS
KEY

The system is designed not to arm with any doors or windows open without taking special action. The system can be *force armed* with one or more open doors or windows if those sensors are "bypassed". Sensors that are bypassed **will not** cause an alarm. There are two ways sensors can be bypassed:

Quick Bypass

To bypass **all** open doors and windows when arming the system use the "Quick Bypass" feature. **Quick bypass is not available in UL Listed Installations.**

- ① Enter the desired Security Level and your PAC.
- ② If doors or windows are open, continuous rejection tones will sound from the keypad.
- ③ Press and hold the BYPASS key to bypass **all** of the open doors and windows.
- ④ The system will then arm, sounding the level change gong and level count beeps.

All bypasses can remain until the system is disarmed (installer option).

Direct Bypass

Specific sensors can be bypassed using "direct bypass". The sensor(s) will remain bypassed until the Security Level is changed. It is possible to bypass any sensor using direct bypass.

To direct bypass a sensor:

- ① With all doors and windows closed, arm the system to the desired level.
- NOTE: If you bypass a sensor during an exit delay period, the exit delay time period starts again each time you bypass.
- ② Press the BYPASS key, then the two digit number of the sensor you wish to bypass.
 - ③ The accept tones will sound, signaling the bypass and the BYPASS light will go on for that sensor.
- NOTE: If you want to bypass more than one sensor, repeat the above two steps.

Bypass Delay

If an arming attempt fails because sensors are open, the system will automatically arm after all of the open sensors have been restored or bypassed. A "bypass delay" gives you time to close doors and windows or bypass them. The bypass delay time is 45 seconds and is extended another 45 seconds each time a sensor is restored or bypassed. If all the open sensors have not been restored or bypassed before the end of the bypass delay, the system will not arm.

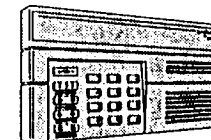
- NOTE: The system will automatically bypass all open sensors after the bypass delay when armed to Level 4 if the installer has programmed Auto Bypass Arming.

STATUS KEY

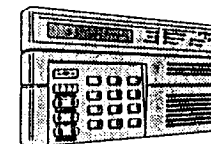


STATUS
KEY

The STATUS key has four functions:



- ✓ If the STATUS key is pressed on a wireless keypad (keypad with no display), the current level count beeps will sound from the wired keypads.



- ✓ If the STATUS key is pressed on a wired keypad (keypad with display), the current level count beeps will sound and the display will show "—". A sensor number or special keypad command can be entered. Entering a sensor number displays the current state of that sensor.
- ✓ If the STATUS key is pressed on a wired keypad and held for about 1 second, the display will cycle to show the status of all of the sensors. If all sensors are closed and no trouble conditions exist, the display will show "." on a standard keypad or "SYSTEM READY" on the alphanumeric keypad.
- ✓ If the STATUS key is pressed during the status display cycle, the display will freeze on the sensor displayed. Press STATUS again to restart the display cycling.

After using the STATUS key, the display will return to normal after 45 seconds of keypad inactivity.

24-Hour System Status Display

The system can be programmed by the installer to light the status displays while the keypad is idle. This allows a quick way to check the overall system status without having to press any keys on the keypad. Ask your installer to enable the "24-hour System Status Display" if you desire this option.

With the 24-Hour System Status Display enabled, if any exterior or restricted interior sensors are "open", the OPEN indicator will remain lit on the keypad(s). The status for sensors in "trouble" is displayed by flashing the corresponding indicators (alarm, low battery, supervisory or tamper) along with the TROUBLE indicator.

KEYPAD FEATURES

Keypad Lockout Timer

Keypads have a five second timer that automatically locks out further keypad entries after an incorrect command sequence or PAC is entered. The keypad will automatically unlock five seconds after the last keystroke. At any time during a keystroke sequence, the keypad and display may be reset, unlocked and cleared by pressing the "*" key.

NOTE: If the keypad doesn't seem to respond to your commands, press "" before entering the command again.*

Pressing the "*" key also silences any ongoing keypad sound. Any new system beeps, tones or alarms will still be able to sound.

Keypad Lighting

Depending on how the system was setup by your alarm installer, each control station's lights will dim or go out 45 seconds after the last keystroke except in Levels 7 and 8. In Levels 7 and 8, the keypad lighting remains on until the level is exited.

Secure Entry

When entering the premises with the system already armed in the Home or Night security level (Levels 3 or 5) you can rearm the system to the Home, Night or Night Secure security level without having to disarm the system first.

- ① Enter through a "delayed" door (entry delay beeps will sound).
- ② Enter the Level number (3, 5 or 6).
- ③ Enter your PAC.

NOTE: Sensors that were bypassed when the system was first armed remain bypassed during and after Secure Entry.

Secure Exit

When leaving the premises with the system already armed in the Home or Night security level (Levels 3, 5 or 6) you can rearm the system to the same security level to create an exit delay. At the end of the exit delay, the system resumes normal protection.

- ① Enter the Level number (3, 4, 5 or 6).
- ② Enter your PAC (exit delay beeps will sound).
- ③ Exit through a "delayed" door before the exit delay expires.

NOTE: Sensors that were bypassed when the system was first armed remain bypassed during and after Secure Exit.

NOTE: Arming to Level 6 disables all entry delays. The system will need to be disarmed remotely, or from the inside, before the premises can be entered without causing an alarm.

EMERGENCY KEYS

Emergency Alarm Keys

If you have an emergency, you can sound the local sirens and notify the Central Monitoring Station by pressing the correct emergency key on any keypad.



POLICE/HOLD-UP
EMERGENCY KEY

Police Emergency (Panic Key)

- ✓ Press the POLICE key and hold for three seconds.



PERSONAL
EMERGENCY KEY

Personal Emergency

- ✓ Press the EMERGENCY key and hold for three seconds.

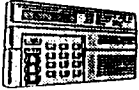


FIRE
EMERGENCY KEY

Fire Emergency

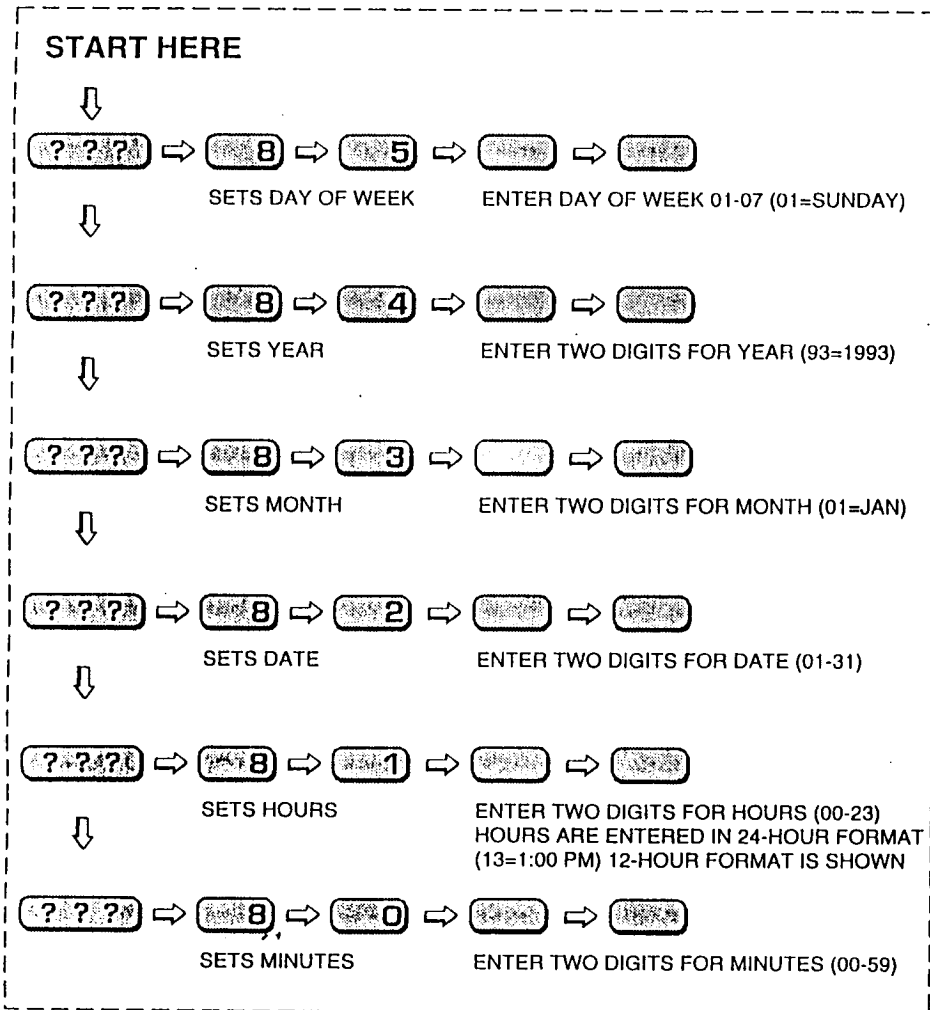
- ✓ Press the FIRE key and hold for three seconds.

SPECIAL KEYPAD COMMANDS



Setting the Keypad Date and Time

The alphanumeric keypads are capable of displaying the present date and time. Use the following example to change the clock and calendar by using the STATUS 80-85 commands. Each step may be used individually, or the entire example can be used to set the complete date and time. **The system should be in Security Level 0 before performing these commands.**



Additional Keypad Commands

These special keypad commands are used for resetting functions and performing system tests. **The system should be in Level 0 before performing these commands.** These special keypad commands must be made from wired keypads.

- Press STATUS then "86"
 Adjusts clock 1 second per day faster.
- Press STATUS then "87"
 Adjusts clock 1 second per day slower.
- Press STATUS then "90"
 Displays version of control panel firmware.
- Press STATUS then "96"
 Displays alarm memory of up to nine alarm events in order of occurrence. (Can be used in any Level.)
- Press STATUS then "97"
 Clears all trouble displays on the keypad. (Must be used in Level 0.)
- Press STATUS then "98"
 Starts a manual system backup battery test.
- Press STATUS then "99"
 Resets latching wired smoke detectors.

ALARM MEMORY



Alarm memory allows you to display which sensors have caused an alarm. The violated sensors are displayed in the order that they were triggered. The alarm memory clears the next time the system is armed.

- ✓ **The red ALARM light will flash if an alarm has occurred.**
- ✓ The light will remain flashing until the next time the system is armed.
- ✓ Press "STATUS 96" to display the alarm(s) in order of occurrence.
- ✓ With a standard keypad, the SECURITY LEVEL display shows the order of the alarm(s) and the SENSOR display shows the sensor(s) involved.
- ✓ With an alphanumeric keypad, the display shows "SEQUENCE #" for each sensor triggered.
- ✓ To clear the alarm memory manually, press "STATUS 97" from Security Level 0.

NOTE: The system can be programmed by the installer to display the alarm memory on the keypads automatically for 45 seconds after an alarm occurs. This allows for "hands free" display of the sequence of alarms. Ask your installer to enable "Automatic Alarm Memory Display" if you desire this feature.

BACKUP BATTERY POWER

Your system is equipped with a backup battery in case of AC power loss. The battery can operate the system for one to two days. When power is restored, the battery will automatically recharge.

During AC power loss:

- ✓ The green keypad power light will blink.
- ✓ The keypad's display and key lights will shut off after 15 seconds to conserve the backup battery.

If you want to know your Security Level during a power failure, simply press the STATUS key. The keypad's display will light momentarily and the level count beeps will sound.

NOTE: The system automatically tests the backup battery on a regular basis. You can manually test the backup battery at any time by pressing STATUS then "98" from Level 0.

SPECIAL TESTING LEVELS

NOTE: Test system weekly to assure continued protection and proper system operation.

The system features two special Security Levels for testing (Level 7 and Level 8).

To Test the Telephone Connection

LEVEL 7 PHONE TEST (Gong & 7 Beeps)

- ✓ Sends a telephone "test" message to the central monitoring station (if system is monitored).
- ✓ All intrusion detection is off.
- ✓ All 24-hour sensors (fire, panic and environmental) are armed.

If your system is monitored, this level tests the telephone connection between your system and the Central Monitoring Station.

NOTE: Alphanumeric keypads can be programmed by the installer to display the progress of the call as the system does its test.

- ① Switch to Level 7.
- ② Wait for test to complete.
- ③ System will sound the accept tones and switch to Level 0 when test is complete.
- ④ A Central Station operator will call you to confirm the test.

To Test the Bell (or Siren)

UL recommends testing the connection to the alarm sounder during the weekly system test.

NOTE: If your system is monitored, be sure to call your Central Monitoring Station and inform them of this test. Alternately, immediately follow this test with a Level 7 Phone Test so the Central Monitoring Station knows that you have been testing.

- ① Arm the system to Level 6
- ② Open a protected exterior door or window.
- ③ Listen for the exterior alarm sounder (keypads will sound also).
- ④ Immediately disarm the system by switching to Level 0.
- ⑤ Switch to Level 7 to send a test message.

To Test the System Sensors

LEVEL 8 SENSOR TEST (Gong & 8 Beeps)

- ✓ Used to test each of the system's sensors.
- ✓ Activating sensor causes keypad beep.
- ✓ Display shows sensors that need to be tested.
- ✓ Pressing the STATUS key displays last sensor activated.

This level tests the radio link between each sensor and the control panel. Two different types of tests can be made. The *standard test* is for testing all sensors. The *individual test* is for testing specific sensors.

Standard Complete System Test

- ① Switch to Level 8.
- ② The display will show each sensor number in order.
- ③ Activate each sensor (see below for how to test).
- ④ As each sensor is activated, the sensor test beep will sound and the sensor number will be removed from the display.
- ⑤ Continue testing until all sensor numbers have been removed from the display. The accept tones will sound at the completion of the test.

Individual Sensor Test

- ① Switch to Level 8.
- ② Press STATUS.
- ③ Display will show the last sensor activated.
- ④ Activate sensor(s) (see below for how to test). The sensor test beep will sound when a sensor is activated.
- ⑤ Check display for sensor number.

NOTE: The system will automatically switch from Level 8 back to Level 0 after 4 minutes of inactivity.

While the system is in Level 8, activate each sensor as described below:

How to Test Door and Window Sensors

- ① Open door or window; listen for sensor test beep.
- ② Close door or window.

How to Test Motion Detectors

- ① Stay out of protected area for at least 5 minutes.
- ② Walk through the protected area; listen for sensor test beep.

How to Test Smoke Detectors

- ① Press and hold the smoke detector test button until detector starts beeping.
- ② Hold for an additional 15 seconds; listen for the sensor test beep.

How to Test Keypads (Sensors 65-72)

CAUTION: DO NOT HOLD THE KEYPAD EMERGENCY KEYS FOR MORE THAN 1 SECOND WHILE TESTING! THE ALARM WILL BE TRIGGERED.

- ① Quickly press the fire key; listen for sensor test beep.
- ② Quickly press the medical key; listen for sensor test beep.
- ③ Quickly press the police key; listen for sensor test beep.
- ④ Check display; the keypad's sensor number should be gone.

How to Test Portable Sensors

- ① Press the portable sensor's button; listen for sensor test beep.

TROUBLE DISPLAY CODES

Special situations will cause the TROUBLE light on the keypad(s) to blink. To identify the trouble, press and hold the STATUS key for one second. To clear troubles, fix the problem and press "STATUS 97" from Level 0.

On a standard keypad, view the supervisory code number on the sensor display and watch for the corresponding light indicating the type of trouble.

On an alphanumeric keypad the display will show a "Supervisory Code" listed on the first line of the display and the trouble condition listed on the second line of the display.

The system can identify trouble from three areas: Sensors and keypads, the control panel electrical hardware and the control panel's internal system functions.

Sensor Trouble Codes

Table 2 shows the possible trouble codes that occur from sensors. These kind of trouble conditions can be corrected by taking the actions shown in the table. Call your alarm installer if you are not sure how to correct the trouble.

Control Panel Trouble Codes

Table 3 shows the possible control panel trouble codes that might occur. These kind of trouble conditions can be corrected by your alarm installer by replacing blown fuses, etc.

SENSOR TROUBLE CODES (xx = SENSOR NUMBER)			
CODE #	DISPLAY DESCRIPTION	CAUSE	ACTION
4-64	SENSOR xx LOW BATTERY	Sensor has sent a low battery signal.	Replace battery in sensor number displayed. Trouble clears when sensor's battery is replaced.
4-64	SENSOR xx SUPERVISORY	Sensor has not reported to the control panel in eight hours. May be caused by a missing or inoperative sensor or a radio reception problem.	Check the sensor's condition.
1-64	SENSOR xx TAMPER	Sensor case has been opened and tamper has been reported to the control panel.	Check the sensor's condition. Trouble indication must be cleared with "STATUS 97".
65-72	ACCESSORY xx SUPERVISORY	Accessory (keypad) has not reported to control panel in one minute. May be caused by an inoperative or missing keypad.	Check the keypad's condition. Check the keypad wiring.
65-72	ACCESSORY xx TAMPER	Accessory (keypad) has been removed from its mounting plate.	Check the keypad's condition. Trouble indication must be cleared with "STATUS 97".

Table 2. Sensor Trouble Codes

CONTROL PANEL TROUBLE CODES			
CODE #	DISPLAY DESCRIPTION	CAUSE	ACTION
73	SUPERVISORY CODE 73 COMMUNICATION FAILURE	Control panel has failed to fully communicate with the central monitoring station.	Call your alarm installer.
74	SUPERVISORY CODE 74 PANEL LOW BATTERY	Control panel has a low or missing backup battery.	AC power may have gone off for a long period. Be sure transformer is connected to an unswitched outlet that provides power 24 hours-a-day.
75	SUPERVISORY CODE 75 PANEL AUXILIARY FUSE FAILURE	Control panel auxiliary power fuse is blown or missing.	Call your alarm installer.
76	SUPERVISORY CODE 76 PANEL FIRE FUSE FAILURE	Control panel fire power fuse is blown or missing.	Call your alarm installer.
78	SUPERVISORY CODE 78 PANEL POWER FAILURE	Control panel has had a complete loss of AC and DC power.	AC power may have gone off for a long period. Be sure transformer is connected to an unswitched outlet that provides power 24 hours-a-day.
79	SUPERVISORY CODE 79 PANEL TAMPER CONDITION	The control panel cabinet has been opened.	Check the control panel door. Call your alarm installer.
80	SUPERVISORY CODE 80 PANEL AC POWER FAILURE	The control panel has had a loss of AC power.	AC power may have gone off. Be sure transformer is connected to an unswitched outlet that provides power 24 hours-a-day.
87	SUPERVISORY CODE 87 UNINSTALLED ACCESSORY	A keypad has been wired to the control panel but has not been installed into the system memory.	Call your alarm installer.

Table 3. Control Panel Trouble Codes

Internal System Trouble Codes

Table 4 shows the possible internal system trouble codes that might occur under rare system conditions. Call your alarm installer if these conditions occur.

INTERNAL SYSTEM TROUBLE CODES			
CODE #	DISPLAY DESCRIPTION	CAUSE	ACTION
77	SUPERVISORY CODE 77 PANEL RADIO FAILURE	The control panel has detected a problem in the radio receiver circuitry.	Call your alarm installer.
88	SUPERVISORY CODE 88 EEPROM WRITE FAILURE	The control panel has detected an error when updating its memory.	
89	SUPERVISORY CODE 89 WATCHDOG MONITOR RESET	The control panel has detected abnormal operation of the control panel software and has restarted itself.	

Table 4. Internal System Trouble Codes

REGULATORY NOTICES

FCC Notice

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 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:

- ✓ Relocate the control panel away from the TV/radio receiver.
- ✓ Plug the control panel into a different wall outlet so that the console is on a different branch circuit.
- ✓ Re-orient the TV/radio antenna.

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

DOC Notice

The Canadian Department of Communication 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.

The following is for Canadian installations only:

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 a 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:** Users 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 Number of all the devices does not exceed 100.

The load number for the CP-90 SSC00017 is equal to 7.

LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twelve (12) months. The Warranty Expiration Date is labeled on the product. This warranty extends only to wholesale customers who buy direct from Linear or through Linear's normal distribution channels. Linear does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. There are no obligations or liabilities on the part of Linear Corporation for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation. All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until Warranty Expiration Date as labeled on the product. This Linear Corporation Warranty is in lieu of all other warranties express or implied.

For warranty service on Linear equipment return product, at sender's expense to:

Linear Corporation
2580 Pioneer Avenue, Suite C
Vista, CA 92083
Attention: Repairs Department

Important Information

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signaling. However, there are some limitations which must be observed.

- ✓ For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- ✓ A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- ✓ Changes or modifications to the device may void FCC compliance.
- ✓ Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- ✓ A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.

Evacuation Planning

For systems that include fire protection, UL requires that the following information be available to the users of the system.

- ✓ Draw up a floor plan showing two exits for each room.

The following procedures are to be discussed with the family:

- ① Status of bedroom doors.
- ② Familiarity with alarm signals.
- ③ Testing of door during a fire and use of alternate escape route if door is hot to the touch.
- ④ Crawling and holding breath.
- ⑤ Escape fast. No stopping for packing.
- ⑥ Meet at designated outdoor spot.
- ⑦ Emphasize that no one is to return to a burning house.
- ⑧ Fire department notification from a neighbor's phone.
- ⑨ Periodic rehearsal is to be conducted.