

MasterLink

Wireless Home Network

USER MANUAL




Electronics Line

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 Hereby, Electronics Line declares that this control panel is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. All data is subject to change without prior notice.

1: Introduction

Congratulations on purchasing the MasterLink wireless home network. In addition to the explanation you will receive from your installer, we urge you to read through this manual so that you can take full advantage of its features. Keep this manual in an accessible location for future reference.

Note: Remember that no security system can prevent emergencies. This system is only intended to alert you in case of an emergency and should not take the place of prudent security practices or life and property insurance.

IMPORTANT

The MasterLink system has many features to suit a wide range of applications. This manual outlines all of these features but it is likely that there are options that are not relevant to your system. If you have any questions regarding the availability of the features described in the manual, please ask your installer.

2: Overview

The system is made up of a control panel, one or more keypads, various sensors and peripheral modules. The metal cabinet contains the control panel and the stand-by battery. There is normally no reason for anyone but the installer to have access to the control panel.

Keypads

System operation is performed using any of the keypads installed with your system. They are usually mounted in areas close to the entrance of your home or business for convenience. Keypads are available with either an LCD or LED display that provide a user-friendly interface with the MasterLink system.

Zones

The MasterLink security system comprises 8 security zones and can be expanded to 24. A zone can be defined as a protected area in your security system. Each zone can be protected by one or more detection devices such as motion detectors, magnetic contacts, glassbreak detectors and shock sensors. When one of these detection devices is activated it “opens” the zone to which it is connected.

System Monitoring

Your security system can be monitored either by a monitoring service or by using the Follow-me feature. When using a monitoring service, the MasterLink sends a message to a central station when an event occurs within your system. The Follow-me feature enables you to enter the telephone number where you can be reached, in order for the system to contact you when an event occurs.

Partitioned Systems

The MasterLink can be partitioned into individual sub-systems that operate as separate security systems. In this mode, each sub-system operates as normal. However, more than one keypad cannot be used simultaneously. You must wait until the first keypad has completed its operation.

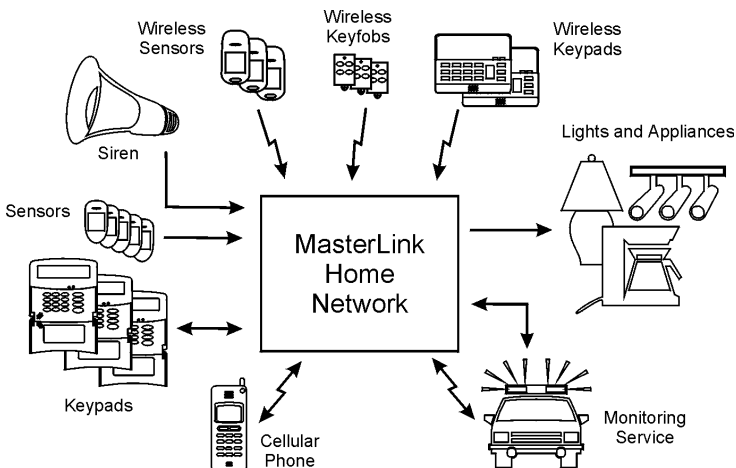


Figure 2.1: System Overview

3: Keypads

3.1: Supported Keypads

The MasterLink security system supports the keypads pictured in Figure 3.1. The layout for each keypad differs but the operation instructions for all the keypads are identical.

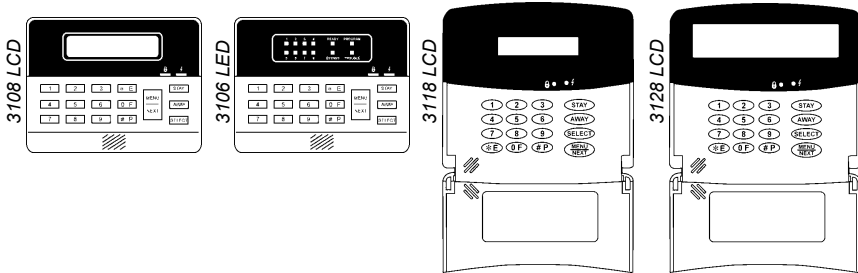


Figure 3.1: MasterLink Keypads

For simplicity, this manual relates to the 3108 LCD in all the operating instructions. If your security system includes 3106 LED keypads, refer to 8: LED Keypad Operation.

3.2: 3108 LCD Keypad Layout

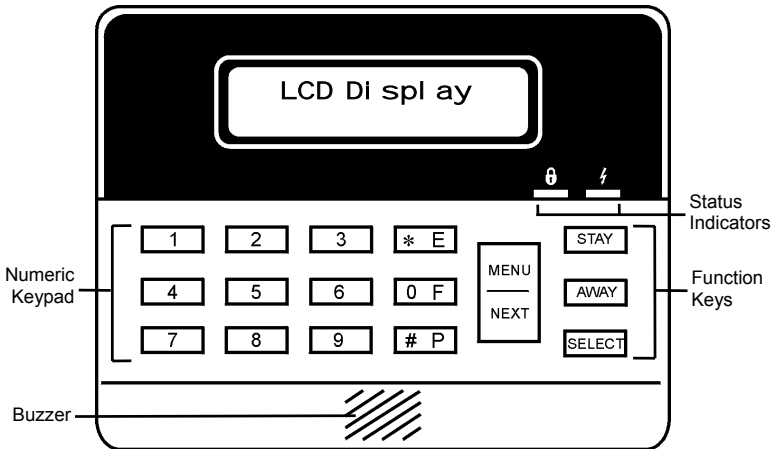


Figure 3.1: 3108 LCD Keypad Layout

The 3108 LCD keypad includes a 32-character liquid crystal display. All operations are performed using the numeric keypad and the function keys: STAY, AWAY, SELECT and MENU/NEXT.



ARMED: The Armed LED lights up to indicate the system is armed and goes out when the system is disarmed.



POWER: The Power LED lights up when both AC & battery power are OK, blinks when the battery is low & AC power is OK and goes out in the event of AC power failure.

4: Basic System Operation

4.1: Arming and Disarming

Arming can be defined as activating the system. When the system is armed, it monitors the zones that are protected using the various connected detection devices. If a detection is made, the zone is opened and an alarm is generated.

Likewise, if a zone is opened when the system is disarmed an alarm is not generated – *this does not apply to 24hr zones that are always active regardless of system status.*

Two main arming modes are available, “Away” and “Stay”, these modes enable you to arm the whole security system or only the zones that protect the perimeter of the protected premises.

Note: If one-key arming is enabled, it is not necessary to enter your user code when arming the system.

Away Arming

Away arming activates the entire system. You use this method of arming when leaving the premises.

To Away arm the system:

1. Check that no zones are open (i.e. all entrances are secured and the premises are empty) so that the system is “ready” for arming.
2. Press the AWAY key.
3. Enter your user code; the LCD displays “SYSTEM X ARMED, XX SEC TO EXIT!”
4. Exit the area within the exit delay count down. **Note: Failure to exit during the exit delay will result in an alarm.**

Stay Arming

Stay arming activates the system’s perimeter zones. When only the perimeter is armed, you are able to wander freely in the protected area without triggering an alarm. Stay arming is usually used to arm a home at night.

To Stay arm the system:

1. Check that no perimeter zones are open (i.e. all doors and windows are secured) so that the system is “ready” for arming.
2. Press the AWAY key.
3. Enter your user code; the LCD displays “SYSTEM X ARMED, XX SEC TO EXIT!”, at the end of the delay, the system is armed.

Disarming

When you enter the premises, the keypad chimes for the duration of the entry delay. You must disarm the system within the entry delay time to prevent the system from triggering an alarm.

- To disarm the system, enter your user code.

Alarm Indication

In the event that an alarm has occurred, the LCD displays information regarding the zone that generated the alarm. This information is displayed until the next time the system is armed. The example, shown in Figure 4.1, indicates that an alarm has occurred in Zone 4 - Bedroom. **Note: If upon returning to the premises your panel indicates an alarm has taken place, leave immediately and telephone the monitoring service or the relevant authorities.**



Figure 4.1: Alarm Indication

4.2: Distress Keys

In the event of an emergency, you can trigger three kinds of alarm from the keypad.

To generate a distress key alarm:

1. Press and hold down the MENU/NEXT key.
2. Keeping the MENU/NEXT key held down, press E, F or P for more than 1 second.

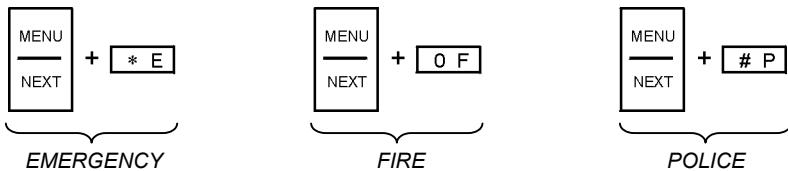


Figure 4.2: Distress Keys

5: Advanced System Operation

The procedures included in this section are all performed using the command code for each function. For quick reference, all command codes are listed on the pull up card located at the rear of the keypad or on the inside of the keypad's door.

Alternatively, you can select functions by browsing through the menu as explained in the following section.

5.1: Menu Navigation

To select an item from the menu:

1. Press MENU/NEXT; the first item in the main menu is displayed.
2. Press MENU/NEXT to scroll through the menu. Press “*” to scroll backwards.
3. Press SELECT to select the displayed menu item (indicated by the arrow, “>”).

Certain menu items require you to enter your user code in order to gain access.

To exit the menu at any time, press AWAY.

The following is a list of menu items and their shortcut command codes.

1 - DISARM	421 - WALK TEST	63 - PRINT LOG
2 - ARM	422 - BELL TEST	64 - SHOW VERSIONS*
21 - PERIMETER ARM	423 - TELEPHONE TEST	7 - PROGRAMMING*
22 - NORMAL ARM	425 - SYSTEM TEST*	71 - MANUAL PROG.*
3 - BYPASS	426 - BATTERY TEST*	72 - LOAD DEFAULT*
31 - BYPASS ZONE	43 - FIRE SENSOR RESET	74 - REMOTE PROG.*
32 - UNBYPASS ZONE	44 - BELL CANCEL	741 - OFF HOOK*
33 - CHIME ON	45 - STOP COMM.	742 - CALLBACK*
34 - CHIME OFF	46 - FOLLOW ME	75 - PERIPHERALS*
39 - UNBYPASS ALL	5 - USER CODES	8 - AUX RELAY*
4 - SERVICE	6 - VIEW/LOG	83 - RESET RELAY*
41 - SET TIME & DATE	61 - VIEW LOG	84 - SET RELAY*
42 - TEST	62 - CLEAR LOG	9 - HOME AUTOMATION

*Installer Functions

5.2: Bypassing Zones

When a zone is bypassed, it is ignored by the system and does not generate an alarm when opened.

To bypass a zone:

1. Select Bypass Zone from the Bypass menu or press SELECT, 3,1.
2. Enter your user code.
3. Enter the number of the zone you want to bypass; a scrolling list of bypassed zones is displayed on the LCD.
4. Press AWAY to exit.

Note: The MasterLink system can be expanded to 24 zones. In such systems, the control panel waits for an extra digit when you try to bypass zones 1, or 2. This allows you to bypass the additional zones (for example, zones 11 or 24). In this case, press MENU/NEXT to indicate that no additional digit is necessary.

To unbypass a zone:

1. From the Bypass menu, select Unbypass or press SELECT, 3, 2.
2. Enter your user code and the bypassed zone number.
3. Press AWAY to exit.

To unbypass all zones:

1. From the Bypass menu, select Unbypass All or press SELECT, 3, 9.
2. Enter your user code.

5.3: Chime ON/Chime OFF

Using this feature, you can set a zone to cause the keypad to chime when opened.

To set a zone to chime:

1. Press SELECT, 3,3.
2. Enter your user code.
3. Enter a zone number; the zone is programmed to chime when opened.

To deactivate the zone chime:

1. Press SELECT, 3, 4.
2. Enter your user code.
3. Enter the zone number; the zone will not chime when opened.

5.4: Set Time and Date

To set the time and date:

1. Press SELECT, 4, 1.
2. Enter your user code.
3. Enter the date (DDMMYY).
4. Enter the time in 24 hour format (HHMM).
5. Press AWAY; the modifications to the time and date take effect.

On the LCD keypad, pressing # when the panel is in standby mode toggles the time display to either 24hr or 12hr format.

5.5: Fire Sensor Reset

If programmed by the installer, smoke detectors must be manually reset after detection.

To manually reset smoke detectors:

1. Press SELECT, 4, 3.
2. Enter your user code.

5.6: Bell Cancel

To cancel bell operation:

- Enter your user code.

If the system is armed, this cancels the bell and disarms the system. If the system is disarmed, only the bell is cancelled.

When the keypad is mounted outside the protected area or when the system is armed using the Stay method, you may want to cancel the bell without disarming.

To cancel bell operation without disarming the system:

1. Press SELECT, 4, 4.
2. Enter your user code.

5.7: Stop Communications

To stop the control panel communicating with the monitoring service:

1. Press SELECT, 4, 5.
2. Enter your user code; all communication buffers are cleared and all communications stop immediately.

5.8: Follow Me

In addition to the services provided by professional monitoring companies, the control panel is able to contact you to inform that an event has occurred within the system.

To program the Follow Me telephone number:

1. Press SELECT, 4, 6.
2. Enter your user code.
3. Enter the required telephone number (up to 16 digits, # = 3-second pause, * = switch to tone dialing). **Note: The * key will appear on the display as “T” and the # will appear as “,”.**

5.9: User Codes

User codes permit or restrict access to various operations such as arming and disarming the system. The MasterLink system enables you to program 20 individual user codes with 15 different authorization levels. Each user code can be programmed with 3 to 6 digits.

To program user codes:

1. Press SELECT, 5.
2. Enter your user code; user 1 is displayed.

Figure 3.3 shows a typical user code as it appears on the LCD display. In the example User Code 1 (authorization level 10) is programmed as **1234** – a 4-digit code assigned to System 1.

The current field is indicated by “>”.

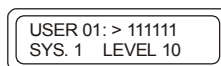


Figure 5.1: User Codes

3. Press MENU/NEXT to scroll to the user codes you want to program.
4. To move from field to field, press SELECT.
5. To change the value of the current field, enter the required value.
6. Press AWAY to exit user code programming or MENU/NEXT to program the next user code.

Authorization Levels

The following table shows the operations available to each authorization level. Note that Level 10 is the highest authorization level offering access to all operations.

	Away Arm	Stay Arm	Disarm	Bell Cancel	Chime ON/OFF	Fire Sensor Reset	Set/Reset Relay	Follow-me	Home Automation	View Log	Clear Log	Bypass/Unbypass	Set Clock	Late to Close	Remote Programming	Stop Communications	Program User Codes	Tests	Programming
Level 0	Access denied to all functions																		
Level 1	✓																		
Level 2	✓	✓																	
Level 3	✓	✓																	
Level 4	✓	✓	✓	✓	✓	✓	✓												
Level 5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓									
Level 6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Level 7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Level 8*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Level 9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Level 10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Level 11**	✓	✓	✓																
Level 12																		✓	✓
Level 13										✓	✓								
Level 14																			✓
Level 15***	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*Non-controlled Code

**Daily Code

***Duress Code

System Allocation

Each user code is assigned to a system. This is only relevant if your security system is partitioned into sub-systems. When programming user codes, define the system to which the user code belongs. Assigning a user code to System 3 gives the user access to all available sub-systems. **Note: If your security system is unpartitioned, assign all codes to System 1.**

Non-Controlled Code

When the system is armed or disarmed using the Non-Controlled Code (level 8) the system does not send a message to the central station. The system sends a message only if the system is disarmed after an alarm has occurred.

Daily Code

The Daily Code feature (level 11) enables you to issue a code that is only valid for one day. This code authorizes only arm/disarm functions and automatically expires at midnight on the day of programming.

Duress Code

The Duress Code (level 15) is designed for situations in which you are forced to operate the system. This user code performs the selected operation, while sending a Duress message to notify the central station.

5.10: Event Log

The event log records the last 100 events that the system has undergone. The event log uses the FIFO (first in, first out) method. Once the log is full, the oldest event will automatically be erased.

In the example (Figure 5.2), the log shows that an alarm occurred in Zone 2 - Bedroom at 12:50 on the 23rd of the month.

To view the event log:

1. Press SELECT, 6, 1.
2. Enter your user code; the most recent event is displayed.
3. Press MENU/NEXT to scroll through the previous events.
4. Press AWAY to exit the log.



Figure 5.2: Event Log

To clear the event log:

1. Press SELECT, 6, 2.
2. Enter your user code; the event log is erased and the “End of Log “ message is displayed. After the log is cleared, the Armed LED stops flashing and all zone in alarm messages are cleared.

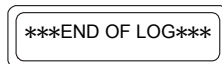


Figure 5.3: End of Log

An add-on module is available that enables you to print the log using a standard printer.

To print the log:

1. Press SELECT, 6, 3.
2. Enter your user code.

5.11: Home Automation

The Home Automation feature enables you to control appliances and lights via the keypad. This feature requires that you have X10 modules installed around the home.

To control an X10 unit:

1. Press SELECT 9.
2. Enter the number of the unit you want to control (01-16).
3. Press MENU/NEXT to toggle between the On and Off commands.
4. Press SELECT; the current time and date appear.
5. Enter the time and date you want the function to occur (do not change anything if you want the command to be sent instantly).
6. Press SELECT.

6: Testing the System

To determine whether the system is functioning normally, there are a number of tests that can be performed. Electronics Line recommends that you perform these tests weekly.

6.1: Walk Test

A walk test enables you to check detection devices such as motion detectors and magnetic contacts.

To perform a walk test:

1. Press SELECT 4, 2, 1.
2. Enter your passcode.
3. Test your system's detection devices. When activated, the keypad chimes indicating that the zone is open.
4. To exit Walk Test mode, press AWAY.
Walk Test mode is automatically terminated after 4 minutes and 15 seconds.

Note: During a walk test, an open zone will not generate an alarm. However, this does not apply to zones programmed as tamper zones and 24hr zones and opening these zones will generate an alarm.

6.2: Bell Test

The bell test sounds the bell for one second to check that it is functioning.

To perform a bell test.

1. Press SELECT 4, 2, 2.
2. Enter your passcode.

6.3: Telephone Test

This test sends a message to each of the monitoring services to check that the system's dialer is functioning and correctly programmed.

To perform a telephone test:

1. Press SELECT 4, 2, 3.
2. Enter your passcode.

Note: The control panel seizes the telephone line in order to run this test.

7: Cellular Communication Features

The MasterLink system offers monitoring and control features that employ cellular communication.

7.1: Cellular Control

Using a number of simple SMS commands, you can control your system from anywhere in the world.

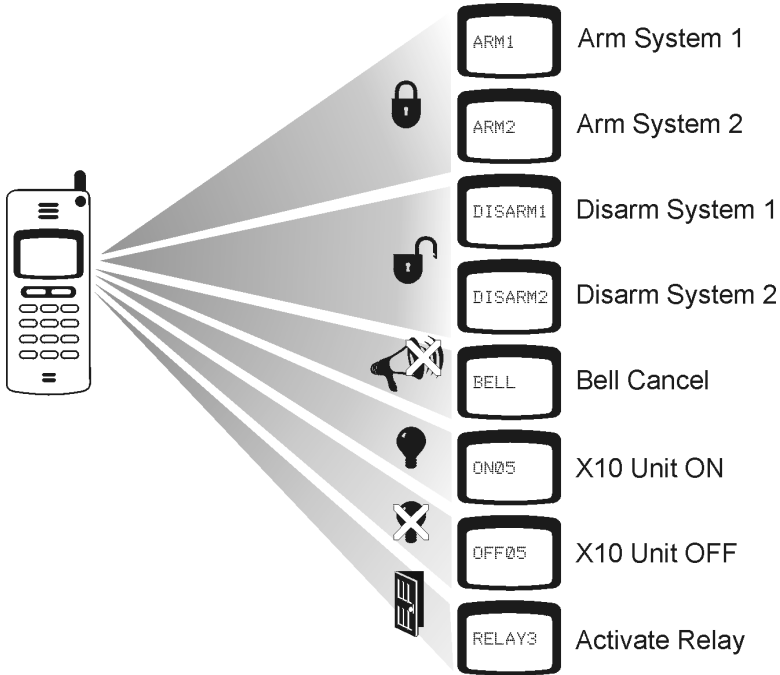


Figure 7.1: SMS Commands

To send an SMS command:

1. On your mobile phone, enter the menu item for sending SMS messages.
2. Send an SMS messages using the following format:

1	2	3	4	#	ARM1
Passcode					Command

Each command contains the following three elements

- Passcode (3-6 digits)
- # (separates the code from the command)
- Command

The following commands are available

- ARMX (Arm System – where X is system number 1-2)
- DISARMX (Disarm System – where X is system number 1-2)
- BELL (Bell Cancel)
- ONXX (Switch X10 Unit On – where XX is unit number 01-16)
- OFFXX (Switch X10 Unit Off – where XX is unit number 01-16)
- RELAYX (Activate Relay – where XX is relay number 1-7)

Scheduled Home Automation Commands

The commands mentioned above are executed the moment the SMS command is received. When sending Home Automation commands, you can schedule the time you want the command to be executed.

A scheduled command takes the following format:

1	2	3	4	#	OFF05	2312
Passcode					Command	Time

In the above example, X10 unit 5 is scheduled to turn off at 11:12pm. Note that the time is entered in 24hr format.

Command Length

The maximum length of an SMS command is 14 characters. Electronics Line recommends that you use a passcode of no more than four digits to ensure that there are no commands over 14 characters.

However, if an SMS command is longer than 14 characters, the system ignores any digits after the 14th character. In the following example, a six-digit code has been entered. As a result the time does not fit in within the character limit. In this case, the scheduled command is executed at 11pm (not 11:12pm).

1	2	3	4	5	6	#	O	F	F	2	3	1	2
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

7.2: Cellular Monitoring

Using your mobile phone, you can send commands to your system and receive information on system status. If an alarm occurs on the premises, you are informed no matter where you are. For a full list of the event messages programmed to be sent to your mobile phone, please consult your installer.

8: LED Keypad Operation

The 3106 LED keypad includes a simple LED display intended for basic system operation. This section provides you with a guide to this display.

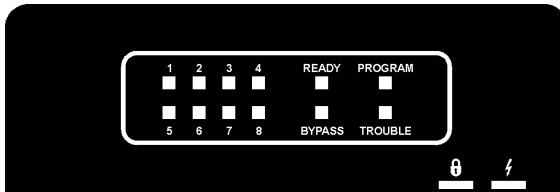


Figure 8.1: 3106 LED Display

1 - 8: Used to display zone status and system status.

READY: Indicates that the system is ready to arm.

PROGRAM: Indicates that the system is in programming mode. The Program LED is lit when SELECT is pressed and flashes when the system waits for an authorized user code to be entered.

BYPASS: The Bypass LED and the relevant zone LEDs flash to indicate that zones have been bypassed.

TROUBLE: Flashes in the event of system trouble. If this occurs, contact your installer.



ARMED: The Armed LED lights up to indicate the system is armed and goes out when the system is disarmed.

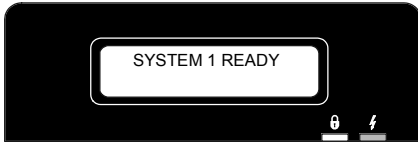


POWER: The Power LED lights up when both AC & battery power are OK, flashes when the battery is low & AC power is OK and goes out in the event of AC power failure.

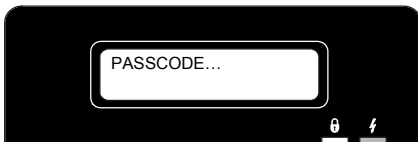
9: Quick Reference Guide

Arming

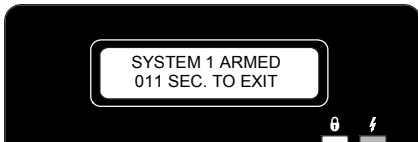
Ensure that there is no movement in the protected areas and that all windows and doors are secure.



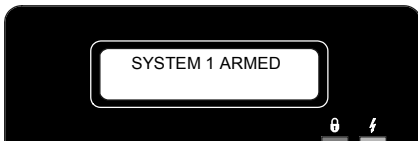
Press AWAY or STAY



Enter your passcode

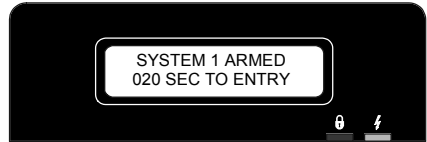


Leave the premises before the end of the exit delay



Disarming

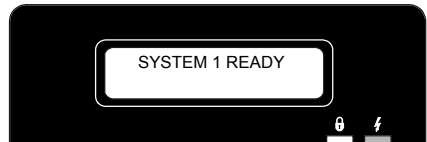
Enter the premises via the designated entry route; the keypad chimes during the entry delay.



Enter your passcode



The system is disarmed



Distress Keys

Press and hold down MENU/NEXT + E, F or P for over a second



Reference Information

To be filled out by the installer.

Installer: _____ Date Installed: _____ Phone #: _____

Monitoring Service

1. Address: _____ Telephone: _____ Account #: _____
2. Address: _____ Telephone: _____ Account #: _____
3. Address: _____ Telephone: _____ Account #: _____
4. Address: _____ Telephone: _____ Account #: _____

Delays

Entry 1: ____ Entry 2: ____ Entry 3: ____ Exit 1: ____ Exit 2: ____ Exit 3: ____ Exit 4: ____

Zones

- | | |
|-----------|-----------|
| 1. _____ | 13. _____ |
| 2. _____ | 14. _____ |
| 3. _____ | 15. _____ |
| 4. _____ | 16. _____ |
| 5. _____ | 17. _____ |
| 6. _____ | 18. _____ |
| 7. _____ | 19. _____ |
| 8. _____ | 20. _____ |
| 9. _____ | 21. _____ |
| 10. _____ | 22. _____ |
| 11. _____ | 23. _____ |
| 12. _____ | 24. _____ |

Bell/Siren

Burglar Alarm Bell Pattern: Steady Pulsed 1 Pulsed 2 Bell Cut-off Time: _____

X10 Home Automation Units

- | | |
|----------|-----------|
| 1. _____ | 9. _____ |
| 2. _____ | 10. _____ |
| 3. _____ | 11. _____ |
| 4. _____ | 12. _____ |
| 5. _____ | 13. _____ |
| 6. _____ | 14. _____ |
| 7. _____ | 15. _____ |
| 8. _____ | 16. _____ |