commpact


# Installation Manual

For quick installation information please refer to the **CommPact**
Quick Start Installation Guide provided on our website: www.electronics-line.com

UPGRADING
EVERYDAY
SECURITY

# Table of Contents

# 1. Introduction

This manual is designed to help you install the CommPact Control System[1]. We strongly urge you to read through this manual, in its entirety, before beginning the installation process so that you can best understand all that this security system has to offer. This manual is not intended for end user use. End users are encouraged to read the user manual provided with the system. If you have any questions concerning any of the procedures described in this manual please contact Electronics Line 3000 Ltd. at (+972-3) 963-7777.

## 1.1. Documentation Conventions

Throughout the manual, we have tried to include all of the operating and programming functions using a similar structure and order as they appear in the menu. A detailed explanation of how to navigate the Control System's menu is included in p. 22, 4.1 Menu Navigation. In order to simplify the procedures that appear in the rest of this manual, the following conventions are used:

**Table 1-1: Documentation Conventions**

| Item… | Description… |
|---|---|
| Select… | Use the arrow keys to scroll through the options and press '√' |
| From the Event Log Menu, select Clear Log. | Enter the main menu by pressing 3 and entering your user code. Using the arrow keys, navigate until you reach Event Log and press 3. Using the arrow keys, navigate until you reach Clear Log and press '√'. |
| From the Service menu, select Time/Date, Set Date. | The same as above only this time you are navigating through three menu levels. |
| [7012] | The shortcut to a specific menu item from the main menu. In this case, this is the shortcut for Set Date. These appear in the procedures as an additional aid to menu navigation. |
| [#5] | A shortcut to a specific item in a sub-menu. For example, [#5] is the shortcut to Bell enable disable in the sub-menu that is opened once you have selected the detector you want to program. |
| √ | The symbol on a key that appears on the Front Panel keypad |
| 5. Interface Test | The text that actually appears on the CommPact LCD display (bold). |
| ☞Due to the occurrence | Important note, please pay attention. |
| ⚠The CommPact Control System is | Caution: description of a potentially hazardous situation. |
| Warning **Do not test with flame!** | Warning: description of a potentially hazardous situation that is a threat to human life. |

[1] The terms *Control System, Control Panel,* and *CP* refer to the same notion.

## 1.2. Specifications

**General**
Zones: 32 wireless zones (1 transmitter per zone), 1 hardwire zone (Zone 33).
Wireless Keyfobs: 19 (Controlled or Non-controlled)
Wireless Keypads: up to 4, including one way or two-way
Repeaters: 4
Wireless Siren: 1 (2-way)
User Codes: 32
Arming Methods: Full, Part or Perimeter.
Event Log: 1022 event capacity, time and date stamped
Weight: 1.350g
Dimensions: 210x153x40 mm

**Communications**
Event Reporting Accounts: up to 6, including Central Station, Follow-Me, and Voice.
Telephone Numbers: 6 event reporting accounts, RP Callback, Service Call.
Communication Interface Options: GPRS, GSM, PSTN.

**Receiver**
Type: Super-heterodyne, fixed frequency
Frequency: 418MHz, 868.35 or 433.92 (optional).
Data Encryption: SecuriCode™

**Electrical**
Power Input: 230VAC, 50Hz, 120VAC, 60Hz/9VAC, 15VA (Model 1332)
AC Current Consumption: 30mA (alarm), 17mA (standby)
DC Current Consumption: 280mA (alarm), 130mA (standby)
Maximum Auxiliary Output Current Rating : 50mA
Battery low: below 7.15V
Backup Battery Pack: 4.8V 1.3Ah Part No. BT3021
(4 x 1.2 NiMH, size AA, rechargeable cells,)
The maximum charging current for the BT-5780 is 1.8 Ah
Fuse Ratings: 63mA/250V for 230VAC – Part No. EF1063,
PGM Relay Output Contact Rating: 100mA (max. load)
Built-in Siren: 93dB @ 10ft
Tamper Switch: N.C.
Operating Temperature: -10°C to 55°C (14°F to 131°F)

* The measurements are with fully charged battery. AC current was measured on fuse F1 and DC current was measured on fuse F2.

⚠ Power connection to the unit should be according to the national electrical code for permanent installation.
The power supply should be fed from a readily accessible disconnect device.
If the unit is permanently wired to the mains power, use a 2-pole disconnect device (15A max.) and the wires should be min. 0.75mm$^2$ in a conduit of at least 16mm.
If the mains power is connected with a plug, the plug should be indicated as the disconnecting device and the socket shall be max. 2m from the Control System.
Batteries shall be provided by a distributor and replaced by authorized service personnel.
The backup battery pack should be replaced every five years.
Batteries should be stored in a cool, dry place.

## 1.3. System Overview

The CommPact Control System is a full-featured wireless Control System that is expected to provide a solution to the needs of most residential installations. This system has been developed based upon a design concept geared towards easy installation and use. With this in mind, the user interface is based on a simple, menu-driven model that suits the essential requirements of both the user and installer alike. You can program the CommPact Control System on-site using the Front Panel keypad or PC, or off-site via a PC using local programming option of the Remote Programmer.

The system offers GPRS network connectivity, providing high-speed central station reporting via a GPRS interface.

The Electronics Line Application Server (ELAS) handles all communication between the system, service providers and web users enabling monitoring and control to be performed via the Web. Backup communication is carried out via PSTN or GSM.

Central station communication and remote parameters programming and maintenance employ GPRS, GSM or standard PSTN communication. SMS messaging provides an innovative method used for both central station and Follow-Me user monitoring. Additionally, SMS messages can be sent to the Control System enabling the user to send commands to the system from anywhere on the planet.

Figure 1-1 shows the components that make up the system and the system's interaction with external communication networks for all the available configurations.

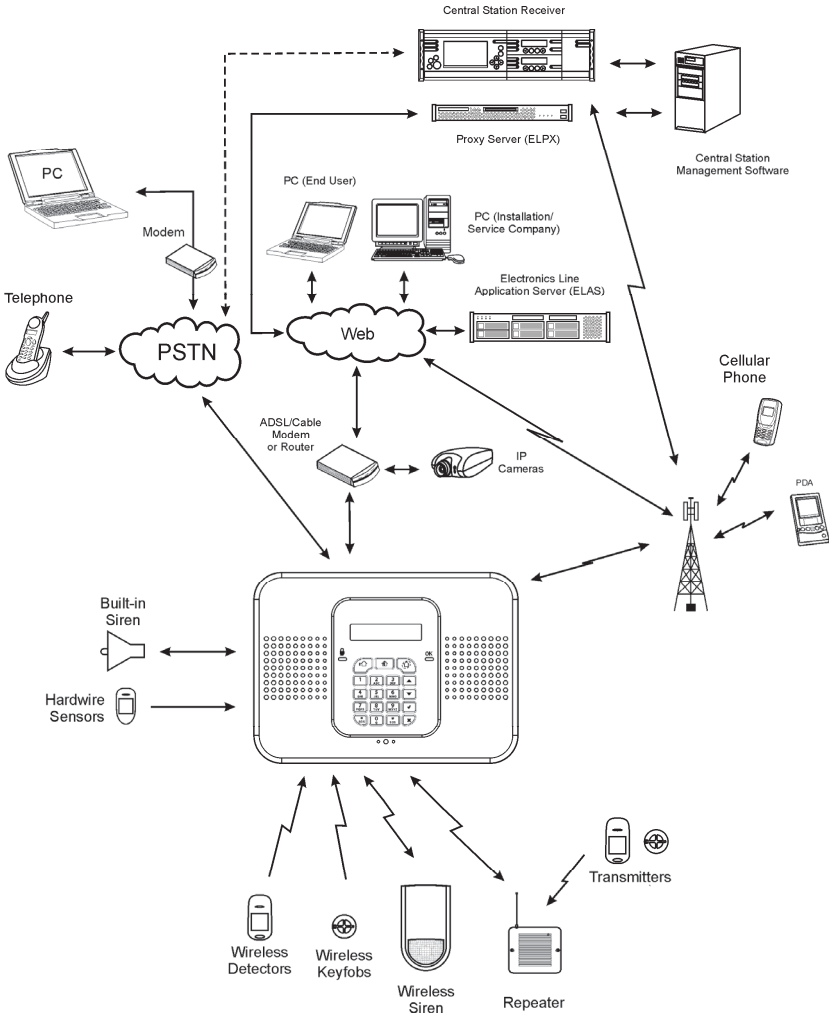



**Figure 1-1: System Architecture**

## 1.4. Hardware Layout

The aim of this section is to acquaint you with the circuit boards that make up the system. The CommPact Control System housing has two PCBs: the Main Board and the Power Supply and Connections Board.

### 1.4.1. Main Board

The Main Board is the brain of the system. It coordinates all the Control System activity.

The Main Board (see Figure 1-2) enables GSM and GPRS communication that allows reporting events to the Central Station send or receive SMS messages, implement cellular Two-Way Audio and remote software update.

This Board also has a standard dialer for communication via the Public Switched Telephone Network (PSTN). Backup communication with event reporting, and Two-Way Audio (TWA) are also available via PSTN.

The Main Board also has connectors to the Built-in Siren and the Speaker.

Additionally, the Main Board includes a USB port for PC programming.

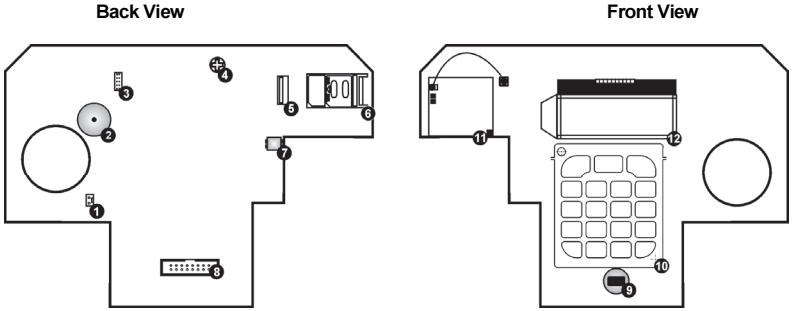



**Figure 1-2: Main Board**

1. Built-in Siren Connector
2. Buzzer
3. Flash Programming Connector
4. LCD Contrast Control
5. USB Port
6. SIM-Card Holder
7. Speaker Connector
8. Flat-Cable Interface Connector to the Power Supply and Connections Board
9. Microphone
10. Front Panel Keypad
11. GSM Engine
12. LCD Display

⚠ **Do not use VoIP phone lines for communication to the central monitoring station. In certain cases the system may not transmit alarm signals successfully over the VoIP network.**

**To reduce the risk of fire, use only No. 26AWG or larger telecommunication wire.**

**Flat cable (8) is not Removable!**

### 1.4.2. Power Supply and Connections Board

As the name suggests, the Power Supply and Connections Board has the AC and battery connectors, power connection fuses, and the transformer. This Board also serves as the interface to the PGM programmable output, the Hardwire Zone, Telephone, Telephone Line, and Back Tamper. On the rear side of the Board, there is a battery switch that allows applying battery power at first installation.

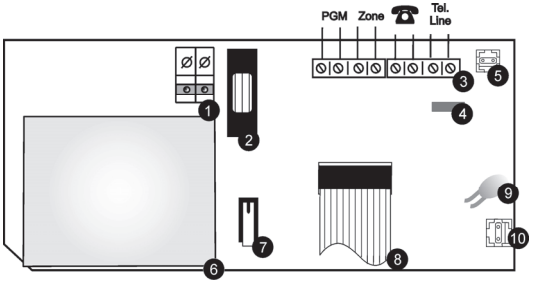



**Figure 1-3: Power Supply and Connections Board**

1. AC Power Connector
2. AC Fuse
3. Terminal Block
4. Telephone Line Fuse
5. Back Tamper Connector
6. Transformer
7. Front Tamper Switch
8. Flat-Cable Interface Connector to the Main Board
9. Battery Fuse
10. Battery Connector

# 2. System Installation

The following chapter explains how to install the system and provides guidelines and tips on how to optimize the installation.

It is recommended that you familiarize yourself with the various circuit boards that make up the system – see p. 4, 1.4 Hardware Layout.

## 2.1. Pre-Installation Planning

Before starting the installation procedure, it is worthwhile to draw a rough sketch of the building and determine the required position for the Control System and each wireless device.

When deciding on the placement for installation, consider the following:

- Mount the Control System in a location with easy access to telephone and power connections.
- Mount the Control System in a location that provides easy connection to the router.
- For best performance of the GPRS Communication, the Control System should be mounted in a position where the GSM signal is strong.
- Refer to the following section in order to choose the optimal location for wireless devices in relation to the Control System.

### 2.1.1. Wireless Installation Guidelines

In order to optimize wireless communication, consider the following guidelines:

- Whenever possible, mount the Control System centrally in relation to wireless detectors.
- Avoid installation in close proximity to sources of high noise or radio frequency interference. For example, metal air conditioner/heater ducts and circuit breaker boxes.
- Minimize the distance between the Control System and transmitters.
- Minimize the number of obstacles between the Control System and transmitters.

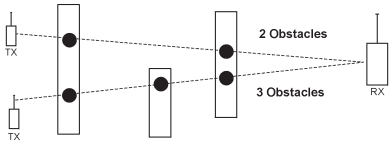



**Figure 2-1: Minimizing Obstacles**

- Metal based construction materials, such as steel reinforced concrete walls, reduce the range of radio transmissions.

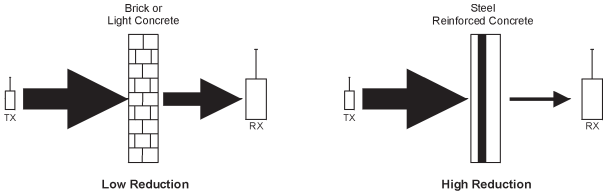



**Figure 2-2: Considering Construction Materials**

- The reduction of the RF signals' strength is directly proportional to the thickness of the obstacle, assuming that the obstacles are of identical material.

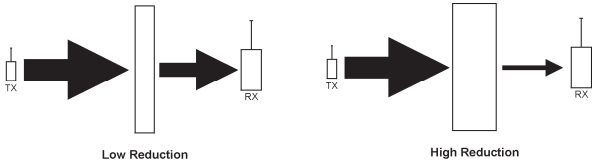



**Figure 2-3: Considering Thickness of Obstacles**

## 2.2. Installation Procedure

The CommPact Control System Kit consists of:

- Control System
- Quick Start Installation Guide
- Quick User Guide
- Mounting Guide
- Plastic bag with Cable Clamp, Cable Clamp screw, Housing Screw,

After unpacking the kit and making certain that you have all the necessary equipment, it is recommended that you install the system as follows:

**STAGE 1:** Temporarily power up the system and install the SIM card.

**STAGE 2:** Selecting language and defaults

**STAGE 3:** Register the transmitters.

**STAGE 4:** Test the chosen mounting location.

**STAGE 5:** Program the relevant Internet options.

**STAGE 6:** Permanently Install the Control System and Transmitters

### 2.2.1. Stage 1 – Temporarily Power Up the System

In order to register and test transmitters, it is necessary to temporarily power up the Control System before permanently installing it.

1. Insert a screwdriver between the front and back panels of the housing; carefully twist it to release the tabs (see p. 8, Figure 2-4).

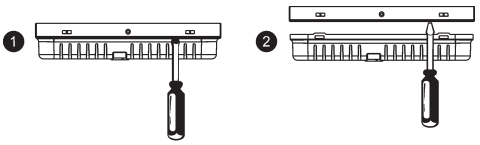



**Figure 2-4: Opening the Housing**

2. Thread the Power AC cable through the hole in the back cover. Connect it to the AC cable connector on the PCB and secure it by Cable Clamp (see p. 9, Figure 2-5).

The Control System is supplied without AC cable. Please use Standard Two-Pin European Plug cable only. For the Cable Clamp, use the screw and the washer supplied in your kit to replace the PCB screw.

3. Open the SIM card holder on the Main Board; insert the SIM card* (see p. 5, Figure 1-2 ).
4. Close the Housing.
5. Plug the Power AC cable into the wall outlet.

In five minutes since power-up, the siren will sound. To silence the siren, press your user code (default user code is 1234).

At this stage, do not connect the backup battery. Ignore any trouble conditions that may appear on the LCD Display (e.g. Low Battery).

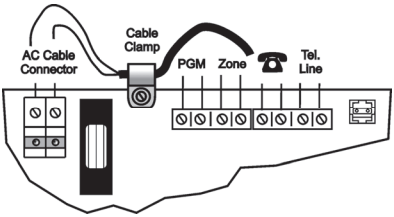



**Figure 2-5: Main Board Wiring Scheme**

### 2.2.2. Stage 2: Selecting Language and Defaults

The Control System supports several languages. Language and defaults settings must be defined before any configuration parameters are set or any transmitters registered.

Setting language and defaults automatically initializes the Control System. This means that all prior configuration settings are reset to the default settings and all previously registered transmitters are deleted from the Control System.

To select language and defaults:

1. Press '√'.
2. Enter your Installer code (the default Installer code is **1111**).
3. From the Programming menu, select Devices [971].
4. Select default and press '√'.
5. Select language (Voice + LCD display) and press '√'.
6. Press '√' once more to initialize the Control System

### 2.2.3. Stage 3 – Register the Transmitters

For the Control System to recognize a device, its transmitter must be registered. In general terms, transmitter registration means sending two transmissions from a device when the Control System is in Registration mode.

To register a device:

1. Press '√'.
2. Enter your Installer code.
3. From the Programming menu, select Devices [91].
4. Select the type of transmitter you want to register. For example, if you want to register a wireless detector to a zone, select Zones.

* optional feature

5. Select the specific device you want to register (for example, Zone 4); the system initiates Registration mode. During Registration mode, the system waits for two transmissions from the device.

If a device has already been registered at the selected location, the system will not initiate Registration mode. If the device has already been registered at another location, attempts to register it are ignored by the system. Zones 1-32 are intended for wireless detectors

6. Register the device – refer to each device's installation instructions in Appendix B for further details.
7. When two transmissions have been received, **Save?** is displayed.

   Press '√' to confirm registration.
8. Continue entering other parameters for the chosen device.
9. Press X to exit menu mode.

### 2.2.4. Stage 4 – Test the Chosen Mounting Location

Once all of the transmitters are registered, it is recommended that you test the chosen mounting locations before permanently mounting the Control System and wireless devices. You can test the transmitter signal strength using the TX Test feature.

To test transmitter signal strength:

1. Press '√'.
2. Enter your Installer code.
3. Enter [7072] (Service, Transmitters, and TX Test) to initiate TX Test mode.
4. Activate the transmitter you wish to test; the transmitter's details appear on the Control System's LCD. Additionally, between one and four tones are sounded to indicate the transmitter's signal strength. If four tones are sounded, the transmitter is in the best possible location – see p. 29, 4.7.7 Transmitters for further information.
5. After you have tested each transmitter, press X to exit TX Test mode.

When using GPRS and/or GSM communication, test the GSM signal strength.

To test the GSM signal strength:

1. Press '√'.
2. Enter your Installer code.
3. Enter [7091] (Service, RF & GSM level, GSM Signal); RF RSSI level measured by the system's receiver – see p. 30, 4.7.9 GSM Signal Strength for further information.

Check the RF RSSI (Received Signal Strength Indication) level using the system's RSSI meter.

To view the RF RSSI level reading:

- Enter [7092] (Service, RF & GSM level, RF RSSI Level); the RF noise measured by the system's receiver is displayed – see p. 31, 4.7.10 RF RSSI level for further information.

### 2.2.5. Stage 5 – Program Internet Options

Internet settings are mostly pre-programmed in the Control System's default settings. The only settings you need to program are the Control System's ID & Password (provided by the ELAS administrator). The following procedures explain how to program the Control System's ID (CPID) and Password. For further information regarding other Internet options and settings, see p. 76, 11 Internet Options.

To program the CPID:

1. Press '√'.
2. Enter your Installer code.
3. Enter [9573] (Programming, Communications, Internet, and CPID).
4. Enter an ID using the alphanumeric keypad. The ID length must be six up to sixteen characters. The ID must begin with a letter.
5. Press '√'.

To program the Control System's password:

1. Press '√'.
2. Enter your Installer code.
3. Enter [9574] (Programming, Communications, Internet, and CP Password).
4. Enter a password using the alphanumeric keypad.

   The password length must be six up to sixteen characters. The password must begin with a letter.
5. Press '√'.

### 2.2.6. Stage 6 – Permanently Install the Control System and Transmitters

Having chosen and tested the mounting location of the Control System and each transmitter, you are now ready to permanently install the system.

To permanently install the transmitters, refer to each device's installation instructions in Appendix B of this manual or to those supplied individually with each product.

To install the Control System:

1. Place the drilling template against the wall and mark the mounting holes.
2. Install 2 wall anchors and screws leaving 2-3mm out of the wall.

   ☞ The Control System must be mounted so that it shall withstand a force of at least three times its own weight.
3. Disconnect (unplug) AC power from the Control System.
4. Open the housing (see p. 8, Figure 2-4).
5. Thread any required cables through the hole in the back cover.
6. Connect the optional Telephone Line, Telephone, Wired Zone, and PGM to their connectors on the Main Board terminal block – see p. 9, Figure 2-5.
7. Plug the AC power cable into the outlet.

   ⚠ Always connect AC power before connecting the battery pack. Batteries are supplied uncharged. When you first connect the battery, it is probable that the system will display a Low Battery condition. Allow the battery to charge for at least 18 hours before use.
8. Connect the Backup Battery to its connector on the Main Board – see p.6 Figure 1-3.

9. Mount the Control System to the wall by hanging the back cover onto the screws.

Make sure that the back tamper is closed.

10. Close the housing making sure that the front and back covers click shut. Apply the housing screw at the bottom of the panel.

## 2.3. Back Tamper

The Back Tamper switch is an optional feature that provides an extra safeguard in the event that the Control System is removed from the wall.

The Back Tamper switch is located on the rear side of the Control System's housing and is constantly depressed while the panel is hanged tightly on the screw.

## 2.4. Internet Communication Setup

After you have powered up the system, the GPRS startup sequence is initiated. During this sequence, the parameters programmed in the Control System's Internet Options (see – p. 76, 11 Internet Options) are activated. After the startup sequence is complete, the Control System attempts to connect to the ELAS GPRS Proxy.

If the Control System is having difficulty connecting to ELAS, a trouble message is displayed. The following table summarizes the trouble messages for this case.

**Table 2-1: ELAS Connection Trouble Message**

| LCD Display | Trouble condition | Restored by |
|---|---|---|
| SIM CARD TROUBLE | SIM card not recognized or incorrectly programmed | Insertion of recognized SIM card or correct programming. |
| MEDIA LOSS GSM | Cellular network down | Cellular network restore |
| DEVICE TROUBLE GSM | Faulty GSM/GPRS module | Replacement of faulty module |
| MEDIA LOSS GPRS MODULE | Wrong GPRS settings (APN, Password etc.) or loss of GPRS service | Correct GPRS settings or restored GPRS service |
| XML FAIL | Control panel fails to communicate with the XML Proxy | Successful communication with XML Proxy |

In this case, check that the Control System's Internet Options are correctly programmed. If you still experience problems, the IP Protocol and GPRS settings must be checked.

To check the IP Protocol and GPRS settings:

1. Open the PCB Compartment and make sure a SIM Card with GPRS support is on the PCB – see p. 13 Figure 3-2.
2. Close the housing and enter your Installer code.
3. Enter [95112] (Programming, Communications, Accounts, Account 1, and Protocol). If the setting is correct, you will see "IP Protocol".
4. Exit this menu and Enter [95113] (Programming, Communications, Accounts, Account 1, Interface). If the setting is correct, you will see "GPRS".

**When using a SIM card with a PIN code, the installer has to make sure that the PIN code programmed in the Control System is the same as the SIM card's PIN code – see p. 8, 10.7.2 PIN Code.**

# 3. Basic System Operation

## 3.1. Front and Back Panel Layouts

The front panel provides a detailed interface for operating and programming the system. The following diagram will familiarize you with the various elements of the front panel.

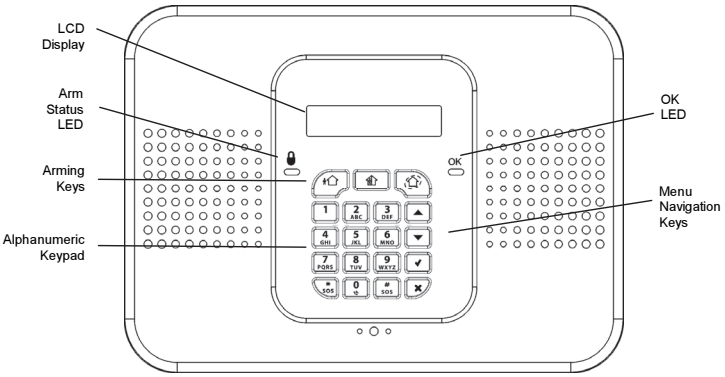



**Figure 3-1: Front Panel**

Next diagram shows the Control System's back panel that provides access to the SIM card, the USB Connector and the battery power switch used at first installation – see Figure 3-2 below.

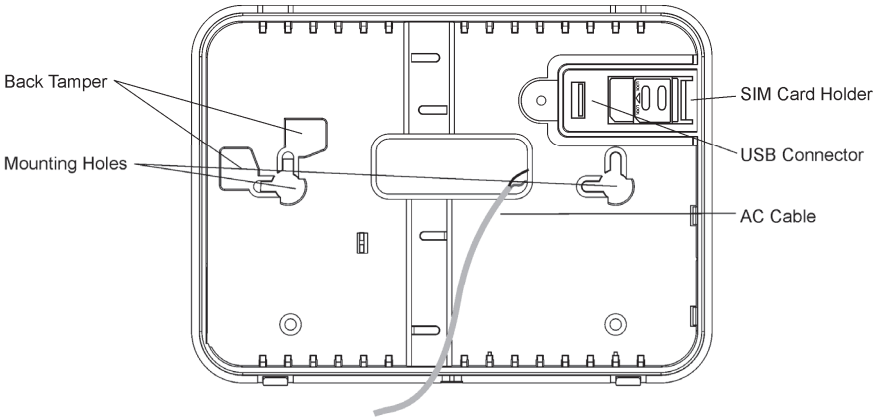



**Figure 3-2: Back Cover**

## 3.2. Front Panel System Status LEDs

The two LEDs, OK and Arm Status, provide essential information on the status of the system.

**Table 3-1: OK LED Indication**

| OK LED Status | Meaning |
|---|---|
| Off | Both AC and Battery power are disconnected. |
| Green On | System Power Status is OK and there is no System Trouble. |
| Green Flashing | Open Zone. Check that the windows and doors are closed and no movement is detected by the detectors within the protected area. |
| Yellow On | System Trouble. |
| Yellow Flashing (slow) | Backup battery low or low battery from transmitters. |
| Yellow Flashing (fast) | AC loss. |
| Yellow Intermittent On/Off | System Trouble in addition to AC loss/Low Battery. |

**Table 3-2: Arm Status LED Indication**

| LED Status | Meaning |
|---|---|
| Off | The system is disarmed. |
| Green On | The system is armed. |
| Red Flashing | An alarm has occurred. Alarm indication is cleared the next time you arm the system or view the relevant arming event in the event log. |

☞ Alarm indication is not displayed after a silent panic alarm.

## 3.3. Front Panel Keypad

The alphanumeric keypad on the front panel enables you to perform various operation and programming tasks. Apart from Full, Part, and Perimeter arming, the front panel keypad offers a number of special functions.

**Table 3-3: Front Panel Keypad Functions**

| Key | Symbol used in the text of this manual | Special function |
|---|---|---|
|  | 1 | Used to enter symbols in descriptor editing. |
|  | 0 | Used to enter symbols in descriptor editing. |
|  | X | Used to cancel the current selection.<br>Used to return to the previous menu level. |
|  | √ | Used to enter Menu mode.<br>Used to select the current menu item.<br>Used to signify the end of an entered value.<br>Toggles status in Zone Bypass/Unbypass function. |

| | | |
|---|---|---|
| * SOS | | In descriptor editing, used to insert a space before the current character<br>In phone number editing, used to enter "T", ",", "P", "+", "*", "#".<br>In account number editing, used to enter Hexadecimal digits (A-F).<br>Toggles item descriptors and default names.<br>In the event log, toggles the time/date stamp.<br>Toggles AM and PM when setting the time in 12hr format. |
| # SOS | | In descriptor and phone number editing, used to delete the current character |
| ▲ | ▲ | Used to scroll backwards in the current menu level.<br>For Global Chime and Message Center features, used to access shortcuts.<br>▲ + ▼ (Global Chime shortcut)<br>▲ + X (Record Message shortcut, front panel keypad only)<br>▲ + √ (Play Message shortcut, front panel keypad only) |
| ▼ | ▼ | Used to scroll forwards in the current menu level.<br>During standby, used to scroll through the list of system trouble conditions. |

## 3.4. LCD Display

The LCD display provides you with a detailed interface for operation and programming.


**Figure 3-3: Typical Standby Display**

### 3.4.1. Standby Mode

Standby mode can be defined as the state the system is in when it is disarmed and not in Menu mode. In Standby mode, the armed status, system status, or banner is displayed. If system status is normal, the current time is displayed.

**Table 3-4: Armed Status**

| Item… | Description… |
|---|---|
| DISARMED | The system is disarmed. |
| FULL ARMED | The system has been armed using the displayed arming method. |
| PART ARMED | |
| PERIMETER ARMED | |
| PART ARMED INST | The system has been armed using the displayed arming method with the Instant arm feature activated. |
| PERIM ARMED INST | |
| FULL ARMING | The system is in the process of arming (displayed during exit delay). |
| PART ARMING | |
| PERIMETER ARMING | |

| | |
|---|---|
| PART ARMING INST | The system is in the process of arming with the Instant arm feature activated. |
| PERIM ARMING INST | |

**Table 3-5: System Status**

| Item | Description |
|---|---|
| ZONES IN ALARM | Zones have been violated. |
| TAMPER ALARM | The system has been tampered with. |
| 56 TO EXIT | The exit delay is counting down (56 seconds remaining). |
| 11 TO DISARM | The entry delay is counting down (11 seconds remaining). |
| SYSTEM NOT READY | The system is not ready to arm, check that all doors and windows are closed. |
| KEYPAD LOCKED | Five unsuccessful attempts were made to enter a user code; the keypad is locked for 30 minutes. |
| SYSTEM TROUBLE | A trouble condition has been detected, press ▼ for further details. |

## 3.5. Audible Notification

The following table is a summary of tones that audibly notify system status.

**Table 3-6: Audible Notification**

| Status | Tones | Description |
|---|---|---|
| Positive Acknowledge | 1 long tone. | The preceding action was accepted. |
| Negative Acknowledge | 5 low tones. | The preceding action was not accepted (e.g. an incorrect user code entry). |
| Exit Delay/ Entry Delay | External Siren: 4 tones. | The exit/entry delay is counting down. |
| | Built-in Siren: 4 tones or Continuous tones. | The number of tones sounded during each delay is determined in programming – see |
| | Continuous tones quicken when there are 15 seconds remaining and quicken again when there are 5 seconds remaining. | The number of tones sounded during each delay is – see p. 498.5 Arming Tones. |
| Chime | 2-tone modulated sequence (similar to a doorbell). | A zone with the Chime option enabled has been opened – see p. 42 7.3.5 Chime . |
| Arm | 3-tone modulated sequence (low to high) sounded twice | The system has been armed using any of the arming methods. |
| Disarm | 3-tone modulated sequence (high to low). | The system has been disarmed. |
| System Trouble | 4 rapid tones sounded once per minute. | A trouble condition has been detected, press ▼ for further details. For Fire Trouble Tones, there is a programmable option to repeat fire-related trouble tones until the problem has been taken care of – see p. 50, 8.6.3 Fire Trouble Tones. |

### 3.5.1. System Trouble Tones

In the event of system trouble, the CommPact Control System sounds a series of tones to alert the user. To silence these tones, press ▼ and scroll through the system trouble list displayed on the LCD. When the trouble condition is restored, it is removed from the system trouble list.



For this feature to function, Trouble Tones must be enabled in programming – see p. 50, 8.6.1 System Trouble Tones.

System trouble tones are not sounded from 10:00pm to 7:00am so as not to disturb household members who may be asleep. However, you can program the system to immediately annunciate telephone trouble at all times – see p. 50 8.6.2 Telephone Trouble Tones.

### 3.5.2. Vocal Message Annunciation

Certain versions of the CommPact Control System hardware support vocal annunciation of system status. If this feature is enabled in programming (see p. 58, 9.10 Vocal Messages), the system plays short messages to indicate arming, disarming, bypassed zones, system trouble, message waiting, and water alarm.

☞ The availability of the Vocal Message annunciation feature is hardware dependent.

### 3.5.3. Alarm Sounding Patterns

The following table summarizes the system's various alarm patterns.

**Table 3-7: Alarm Patterns**

| Alarm | Alarm Pattern Description | Sounding Device |
|---|---|---|
| Burglary | ON (continuously) | Siren |
| Fire | ON - ON - ON, 1.5-second pause, ON - ON – ON... | Siren |
| Gas | ON - ON - ON - ON (short bursts), 5 second pauses, ON - ON - ON - ON... | Siren |
| Medical | ON (continuously) – only applicable for Medical alarm from zone | Siren |
| Flood/ Environmental | 4 rapid tones sounded once per minute (same as Trouble tones) | Buzzer |

## 3.6. Arming and Disarming

The following section explains how to arm and disarm the Control System using the front panel keypad or Wireless Keypad:

### 3.6.1. Arming

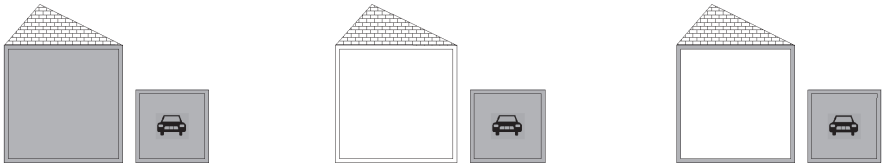
You have three arming modes available: full, part, and perimeter. Figure 3-4 illustrates the three arming modes. In each diagram, the protected area is shaded.

**Full Armed** **Part Armed** **Perimeter Armed**

**Figure 3-4: Arming Modes**

The arming options are entirely flexible. You can program each detector to be included in any combination of the three arming modes – see p. 41, 7.3.2 Arm Set. Additionally, each arming mode has a separate exit and entry delay.

Below you can see another, more complicated example of how can the premises be divided. In this example, the garage is included in full + part + perimeter arming, the house perimeter zones are included in full + perimeter arming, and the house interior zones, in full arming only. So, part arming allows the user to arm the garage, perimeter arming is used to secure the house perimeter at nights, and the full arming is used when leaving the house. Figure 3-5 illustrates this example. In each diagram, the protected area is shaded.



**Full armed** **Part armed** **Perimeter armed**

**Figure 3-5: Arming Modes: Garage Example.**

### 3.6.2. Arming Keys

The Arming keys enable you to arm the system using any of the three arming methods: -- Full, Part and Perimeter.


**Front Panel** **Wireless Keypad EL-2620**

**Figure 3-6: Arming Keys**

### 3.6.3. Full Arming

Full arming is designed for when the occupant vacates the premises.

To fully arm the system using the front panel keypad or Wireless Keypad:

1. Check if the system is ready to arm.
2. Press the Full arming key on the keypad.
3. If One-Key Arming is disabled, enter your user code.

### 3.6.4. Part Arming

Part arming is designed for when the occupant intends to remain inside one part of the premises and secure another part.

To partially arm the system using the front panel keypad or Wireless Keypad:

1. Check if the system is ready to arm.
2. Press the Part arming key on the keypad.
3. If One-Key Arming is disabled, enter your user code.

### 3.6.5. Perimeter Arming

Perimeter arming is designed for when the occupant intends to remain inside the premises and secure the perimeter.

To arm the system's perimeter using the front panel keypad or Wireless Keypad:

1. Check if the system is ready to arm.
2. Press the Perimeter arming key on the keypad.
3. If One-Key Arming is disabled, enter your user code.

### 3.6.6. Combination Arming

The system allows you to activate a combination of two arming methods. If you Perimeter arm the system, you may also activate Full or Part arming. Likewise, you can Perimeter arm the system after activating Full or Part arming. It is not important which arming mode you choose first.

☞ You can activate the second arming mode only during the exit delay of the first arming mode. When the first exit delay expires, you cannot activate a second arming mode.

For combination arming, perform the following procedure:

1. Check if the system is ready to arm.
2. Activate the first arming mode.
3. If One-Key Arming is disabled, enter your user code.
4. While the exit delay of the first arming mode is counting down, activate the second arming mode.
5. If One-Key Arming is disabled, enter your user code.

☞
- It is not possible to activate Full and Part arming modes simultaneously. It is necessary to disarm first when changing from one arming mode to another arming mode.

The exit delays of the two arming modes are entirely independent. The moment an arming mode is activated, its exit delay begins to count down. The entry delay depends on which detector was tripped first. For example, if the detector is included in Full arming, the entry delay for Full arming counts down – see p.41, 7.3.2 Arm Set. If the detector is included in both activated arming modes, the entry delay for Perimeter arming counts down.

Disarming cancels both active arming modes.

### 3.6.7. Disarming

When an entry/exit detector is tripped, the entry delay counts down; each arming method has its own entry delay.

To disarm the system:

- Enter a valid user code, the system is disarmed.

☞ You can only disarm all the active arming modes.

## 3.7. Additional Arming Options

### 3.7.1. Forced Arming

Forced arming enables you to arm the system when the system is not ready. For example, if a door protected by a magnetic contact is open, you may arm the system on condition that the door will be closed by the end of the Exit delay. If the door is still open after the exit delay expires, an alarm is generated.

Two conditions enable you to perform Forced arming:

- Forced arming is enabled – see p. 52, 9.2.1 Forced Arm.
- The detector that is causing the System Not Ready condition is Force Arm enabled – see p.42, 7.3.6 Force Arm.

### 3.7.2. Instant Arming

Instant arming is a feature that allows you to cancel the entry delay after Part or Perimeter arming the system. For this feature to function, it must be enabled in programming – see p. 53, 9.2.4 Instant Arming

To instantly arm the system.

1. Check if the system is ready to arm.
2. Press the Part or Perimeter arming key on the keypad and enter your user code if One-Key Arming is disabled.
3. Press and hold down ▲ on your keypad until the message **Instant Arming, OK?** is displayed
4. Press '√'; the entry delay for the current arming period is canceled.

### 3.7.3. Remote Arming/Disarming via SMS

You can arm and disarm the system remotely by sending the SMS commands from a cellular phone. Additionally, you can check the arm status of the system by sending an Arm Status request message.

Each SMS command contains the following elements:

- ✚ SMS Command Descriptor (up to 43 characters of free text)
- ✚ # (delimiter – separates the descriptor from the actual command)
- ✚ User Code (4 digits)
- × Command (120=Disarm, 121=Full Arm, 122=Part Arm, 123=Perimeter Arm, 124=Full + Perimeter Arm, 125=Part + Perimeter Arm, 200 = Arm Status)

The following example shows the format of an SMS command for arming the system:

| ✚ | | | | | | | | ✚ | ✚ | | | | × | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | U | L | L | | A | R | M | # | 1 | 2 | 3 | 4 | 1 | 2 | 1 |

⚠ **While the SMS Command Descriptor is optional, you must start the SMS command with the # symbol for the system to accept the command.**

After an SMS command is executed by the system, you can program the system to return a confirmation message to the sender – see p. 71, 10.7.5 SMS Confirmation.

### 3.7.4. Arm Status Reply

On receiving an Arm Status request message, the system returns a status message to the sender. This message includes the system status and the descriptor of the user or the device used to arm/disarm the system.

The following example shows an Arm Status Reply message reporting that the system was fully armed by Master User.

| F | U | L | L |  | A | R | M | E | D | - | M | A | S | T | E | R |  | U | S | E | R |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

### 3.7.5. Remote Arming/Disarming via DTMF

Using the Telecontrol feature, you can arm and disarm the system via the telephone with DTMF commands. For further information on the Telecontrol features, see p. 34, 5.1.5 Arm/Disarm DTMF Commands.

### 3.7.6. Remote Arming/Disarming via WUAPP

You can arm and disarm the system remotely using the WUAPP (Web User Application) – see p. 142, Arm/Disarm.

### 3.7.7. Alarm Activation

In the event of an emergency, the user can generate three kinds of alarms from the front panel keypad, wireless keypad, or keyfobs.

To activate an SOS Panic alarm from the Keyfob EL-2714:

- Press B1 and B2 buttons simultaneously.

**Figure 3-7: SOS Panic Alarm Activation (EL-2714)**

To activate an SOS Panic alarm from the front panel keypad:

- Press and hold down both SOS buttons simultaneously.

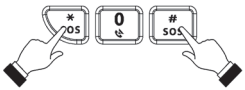



**Figure 3-8: SOS Panic Alarm Activation (Front Keypad)**

To activate a Fire alarm from the front panel keypad:

- Press and hold down buttons 1 and 3 simultaneously.

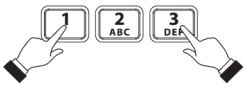



**Figure 3-9: Fire Alarm Activation**

To activate a Medical alarm from the front panel keypad :

- Press and hold down buttons 4 and 6 simultaneously.


**Figure 3-10: Medical Emergency Alarm Activation**

# 4. Advanced System Operation

Besides the basic arming functions described in the previous chapter, you can access additional functions via the menu. This chapter describes these functions and the menu navigation procedure.

## 4.1. Menu Navigation


**Figure 4-1: On-Board Keypad Layout**

The Front Panel's friendly, menu-driven interface is designed to facilitate operation and provide a gentler learning curve for first-time users. You can navigate through the menus using the arrow navigation keys (▲/▼) and make simple yes/no decisions using the 3and 7keys.

For example, perform the following procedure to navigate to Service, Interface Test.

1. Press '√' to enter Menu mode.
2. Enter an authorized user code; the first menu item, **1. Cancel Report** is displayed.
3. Press ▼ until **7. Service** is displayed.
4. Press '√' to enter the Service menu.
5. Press ▼ until **5. Interface Test** is displayed.
6. Press '√' to choose the displayed function.

Press X to return to the previous menu level. Press this key when you are in the main menu to exit Menu mode.

As an alternative to scrolling through menu options, you may enter a function's shortcut once you have entered Menu mode. Shortcut numbers appear in square brackets in the procedures throughout this manual.

### 4.1.1. Menu Mode Timeout

Menu mode automatically terminates at a predefined amount of time after the last keystroke. The duration of this timeout depends upon which code is used to enter the menu. Usually the Menu Mode Timeout is two minutes but if you enter menu mode using the Installer code, the timeout is extended to fifteen minutes.

## 4.2. Cancel Report

This feature allows the user to cancel false alarms. Cancel Report behavior depends on time when it is performed. If the user selects Cancel Report:

- …before the alarm/restore message is sent, all the pending alarm or restore messages in the queue are aborted and marked "Cancelled" in the event log.
- …within 5 minutes since an alarm, a Cancel Report event and the user number are sent to the Central Station;
- …at the moment when the event is being reported (communication in progress), the event reporting is not cancelled;

☞ Non-alarm events (system trouble, arm/disarm etc.) are not aborted by Cancel Report.

To activate cancel report:

- From the main menu, select Cancel Report. [1].

## 4.3. Zone Bypassing/Unbypassing

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

To bypass or unbypass a detector:

1. From the Bypass Zones menu, select Bypass/Unbyp. [21].
2. Using the arrow keys, scroll to the detector you want to bypass or unbypass.
3. Press '√' to change the bypass status.
4. Press 'X'; **Save Changes?** is displayed.
5. Press '√' to confirm the changed bypass status.

To unbypass all detectors:

1. From the Bypass Zones menu, select Unbypass All [22].
2. Press '√'; all detectors are unbypassed.

☞ All bypassed zones are automatically unbypassed when the system is disarmed.
A Fire zone cannot be bypassed.

## 4.4. User Codes

The Control System supports up to 32 individual user codes. Each of these codes is four digits long. Most system operations require you to enter a valid user code. The ability to perform an operation is defined by your user code's authorization level. These authorization levels are pre-defined for each code as explained below.

☞ Codes 1-29 can be edited only by the Master code.
The Installer code and the Central Station TWA Code can be edited only by the installer.

*Code 1: Master Code*

The Master code is the highest user authorization level. With the Master code, you can edit all other user codes except the Installer code, the Guard code and the Central Station TWA Code. Additionally, the Master code grants access to the Event Log, and the Service menu. The Master code is a "controlled" code. Arming and disarming using this code causes the Control System to notify the central station with an Arm/Disarm event message*.

⚠ **The default Master code is 1234. Change this code immediately after installing the system!**

*Codes 2-19: Controlled Codes**

When you use a controlled user code for arming and disarming, the Control System notifies the central station with an Arm/Disarm event message.

*Codes 20-25: Non-controlled Codes*

Non-controlled codes do not cause the Control System to send Arm/Disarm event messages to the central station. The Control System sends a Disarm message only if you use this code to disarm the system after an alarm occurrence.

*Codes 26-27: Limited Codes*

A Limited code enables the user to issue a code that is valid for one day only. This code automatically expires 24 hours after it has been programmed. These codes are "controlled" in that their use for Arm/Disarm is notified to the central station.

*Code 28: Duress Code*

The Duress code is designed for situations where the user is being forced to operate the system. This user code grants access to the selected operation, while sending a Duress event message to the central station.

*Code 29: Telecontrol Code*

The Telecontrol code is designed to enable the user to perform a number of tasks via their telephone using DTMF commands. Using this code, the user can call their system to arm and disarm, activate and deactivate the PGM output, cancel siren activation or establish Two-Way Audio communication.

*Code 30: Central Station TWA Code*

The Central Station TWA code is designed to enable the central station operator to establish Two-Way Audio communication with the Control System after an alarm. This code is valid for use for the first ten minutes after an alarm has occurred. This code can only be used for this specific purpose and does not grant access to any additional system functions such as disarming.

*Code 31: Guard Code*

Guard Code is an option that allows a security guard to check the premise in case of an alarm.

---

* Only if arm/disarm event group is enabled inSystem Programming

* Only if arm/disarm event group is enabled during System Programming

*Code 32: Installer Code*

The Installer code grants access to the Programming menu and the Service menu. Additionally, this code enables you to view and clear the Event Log.

⚠ **The default Installer code is 1111. Change this code immediately after installing the system!**

### 4.4.1. Editing User Codes

To edit a user code:

1. From the main menu, select User Codes [4].
2. Select the code you want to edit.
3. From the code's sub-menu, select Edit Code [#1]; the 4-digit code is displayed with the cursor flashing on the first digit.
4. Edit the code.
5. Press '√'; the new code is stored in the memory.

☞ If you enter a code that is identical to an existing user code, the Control System sounds an error tone and the new code is not accepted.

### 4.4.2. Deleting User Codes

To delete a user code:

1. From the main menu select, User Codes [4].
2. Select the code you want to delete.
3. From the code's sub-menu, select Edit Code [#1]; the 4-digit code is displayed with the cursor flashing on the first digit.
4. Enter 0000.
5. Press '√'; the code is deleted.

☞ The Installer and Master codes cannot be deleted.

### 4.4.3. User Code Descriptors

Each user code can be assigned a 16-character descriptor. These descriptors help to identify users in the event log and in SMS Follow-Me messages.

To edit a code descriptor:

1. From the main menu, select User Codes [4].
2. Select a code.
3. From the code's sub-menu, select Descriptor [#2].
4. Edit the descriptor using the alphanumeric keypad.
5. Press '√' when you have finished editing.

## 4.5. Follow-Me

The Follow-Me feature is designed to notify the user that certain events have occurred. The events that are sent to the Follow-Me telephone number are those events that the user is authorized to view in the event log; events that can be viewed only by the installer are not sent to the Follow-Me number – see p. 148, Appendix D: Event Table. If using the TWA Follow-Me feature, the audio channel is opened after alarm events only.

To edit the Follow-Me number:

1. From the main menu, select Telephone, Follow-me Number # [5].
2. Enter a telephone number for Follow-Me communication. If using the SMS Follow-Me feature, this number must be for a cellular phone with the capability to receive SMS messages.

☞ You may only access Follow-Me programming if the protocol for Account 3 is programmed as SMS or TWA Follow-Me.

## 4.6. Event Log

The event log records the last 1022 events the system has undergone. The log uses the FIFO (First In, First Out) method, automatically erasing the oldest event when the log is full.

To view the event log:

1. From the Event Log menu, select View Log [61]; a summarized version of the most recent event is displayed. Press the SOS key to view the time/date stamp or the device/user number on the second row of the display.
2. Use the arrow keys to scroll through the events.
3. When you have finished viewing, press 'X ' to exit the log.

The event log displays the following information for each event:

- The event descriptor – a brief description of the event that occurred.
- The zone where the event occurred.
- Time/date stamp – the exact time the event occurred.
- Report details – a single character indicating whether the event was reported to the central station. The options available are **R**: Report Sent, **F**: Report Failed, **C**: Report Canceled, **N**: No Report, or **D:** Disabled.

Figure 4-2 shows the detailed event log entry for a Fire alarm on November 14th 2008. The event was successfully reported to the central station.

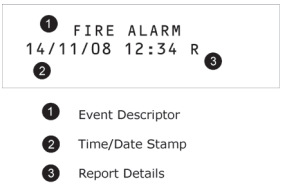



**Figure 4-2: Detailed Event Log Display**

### 4.6.1. Event Log Authorization Levels

Every event that occurs is recorded in the event log. However, certain events are intended for the installer only. Those events include various service messages that are of little interest to the regular user. The View Log function requires you to enter either the Master or Installer code. The events that are displayed depend on which code you use to enter the log – see p.148, Appendix D: Event Table.

### 4.6.2. Clearing the Event Log

The Clear Log function erases all events from the log. After performing this function, a Clear Log event is recorded in the log. The Clear Log function is accessible using the Installer code only.

To clear the event log:

1. From the Event Log menu, select Clear Log [62]; the **OK?** confirmation message is displayed.
2. Press '√'; the log is cleared -- See p.148, Appendix D: Event Table.

☞ For certain versions of the CommPact Control System software, the Clear Log function may be disabled.

## 4.7. Service Menu

The Service menu is accessible using either the Installer or Master code. This menu includes various functions that enable you to test the system effectively.

### 4.7.1. Set Time & Date

The time and date are used to time stamp events in the event log. Additionally the time is also displayed on the LCD display.

To set the time:

1. From the Service menu, select Set Time/Date, Set Time [7011].
2. Enter the current time.
3. Press '√'; the time is modified.

To set the date:

1. From the Service menu, select Set Time/Date, Set Date [7012].
2. Enter the current date.
3. Press '√'; the date is modified.

☞ The format of the time and date is defined in the System Options – see p.55, 9.5.3 Time/Date Format. If you are setting the time in 12hr format, use the  key to toggle between AM and PM.

### 4.7.2. Message Center

The CommPact Control System Message Center is designed to allow the user to record a short message that may be played back later by another user. After a message is recorded, **Message Waiting** is displayed on the LCD until the message is played back. If the Vocal Message option is enabled, the **Message Waiting** vocal message is sounded.

Recording a new message automatically overwrites the previous messages in the Message Center.

To play back a recorded message:

- From the Service menu, select Messages, Play Message [7021].

To record a message:

1. From the Service menu, select Messages, Record Message [7022].
2. Press '√' to start recording the message.
3. Record your message. The message may be up to twenty seconds long.
   Time left out of the 20 seconds' timeout is displayed on the LCD.
4. Press '√' to stop recording; the message is automatically played back and **OK**? Is displayed.
5. Press '√' to save your recording.

To delete a message:

1. From the Service menu, select Messages, Delete Message [7023]; **OK?** Is displayed.
2. Press '√', the message is deleted.

The Record and Play options can also be accessed via a convenient shortcut without needing to enter a valid user code.

To play back a recorded message via a keypad shortcut:

- From Standby mode, press ▲ then '√'.

To record a message via a keypad shortcut:

- From Standby mode, press▲, 'X'then '√'.

### 4.7.3. Wireless Siren Test

To test the wireless siren:

- From the Service menu, select WL Siren Test [703]; the external siren is sounded briefly.

### 4.7.4. Siren Test

To test the Control System's Built-In Siren:

- From the Service menu, select Siren Test [704]; the Control System's Built-In Siren is sounded briefly.

### 4.7.5. Interface Test

The Interface test enables you to check if the speaker, LEDs and LCD are functioning correctly.

To test the system interface:

- From the Service menu, select Interface Test [705]; a short sequence of chimes are sounded from the speaker, all LEDs flash and the LCD Display is tested.

### 4.7.6. Walk Test

To initiate Walk Test mode:

1. From the Service menu, select Walk Test [706]; a list of registered detectors appears.
2. Trigger each detector; when the system receives a successful transmission from a detector, the detector is removed from the list.
3. When all the detectors are removed from the list, **End Walk Test** is displayed.
4. Press 'X' to exit Walk Test mode.

### 4.7.7. Transmitters

The Transmitters menu offers two utilities that serve as a valuable aid during installation.

The first utility, TX List, is a scrollable inventory of all registered transmitters and their last reported status.

To view the TX list:

1. From the Service menu, select Transmitters, TX List [7071]; the first transmitter on the list is displayed.
2. Using the arrow buttons, scroll through the transmitter list.
3. When you have finished viewing, press 'X ' to exit the list.

The TX list displays the following information for each transmitter:

- The zone descriptor.
- The signal strength of the last received transmission.
- An abbreviation indicating the last received status of the transmitter – see Table 4-1.

**Table 4-1: Transmitter Status Abbreviations**

| Item | Description |
|---|---|
| OK | The transmitter is functioning correctly |
| TA | Tamper condition |
| BT | Battery low |
| OS | The transmitter is out of synchronization |
| NA | The transmitter is inactive (Supervision Loss) – see p. 39, 7.2.3 Supervision Time |

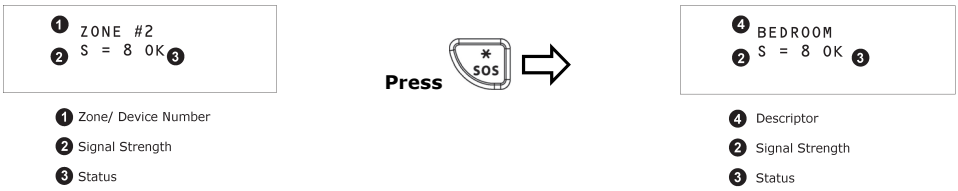



**Figure 4-3: TX List Display**

In most cases, an "out of synchronization" condition indicates that an unauthorized attempt at grabbing the transmission has occurred – i.e. a previous transmission has been recorded and sent by somebody trying to violate the system.

The second utility, TX Test, enables you to identify transmitters and test their signal strength. In TX Test mode, each time a transmission is received, the activated transmitter is displayed. If you enter this function using the Master code, a chime is sounded every time a transmission is received. If you enter this function using the Installer code, a sequence of tones is sounded indicating the transmitter's signal strength – see Table 4-2. This feature helps you to determine the best location to install a transmitter.

☞ The lowest recommended signal strength for any installed transmitter is 5. If the received signal strength is lower than 5, relocate the transmitter.

**Table 4-2: Signal Strength Tones**

| Signal Strength | Strength Tones |
|---|---|
| 0-2 | 1Tone |
| 3-5 | 2 Tones |
| 6-7 | 3Tones |
| 8-9 | 4 Tones |

To initiate TX Test mode:

1. From the Service menu, select Transmitters, TX Test [7072].
2. Activate a transmitter; the transmitter's details are displayed.
3. When you have finished, press 'X' to exit TX Test mode.

### 4.7.8. Audio Volume

To adjust the sensitivity of the microphone and the volume of the speaker:

1. Establish a two-way audio connection – see 5.1.4 Telecontrol Call Procedure.
2. From the Service menu, select Audio Volume [708].
3. Using the arrow keys on the Front Panel keypad, adjust the setting according to the following table.

**Table 4-3: Voice Level Adjustment**

| Key… | Function |
|---|---|
| 1 | Increases microphone sensitivity |
| 4 | Reduces microphone sensitivity |
| 3 | Increases speaker volume |
| 6 | Reduces speaker volume |

4. Press '√'; the new settings are stored in the memory.

### 4.7.9. GSM Signal Strength

You can measure the GSM signal strength. This function and the RF RSSI level (see below) enable you to calculate the optimal location to install the Control System.

To view the GSM signal strength reading:

- From the Service menu, select RF & GSM level, GSM Signal [7091]; the signal strength of the cellular network is displayed.

☞ In severe cases of low GSM signal consider using external GSM antenna.

### 4.7.10. RF RSSI level

You can measure the RF RSSI level (RF noise measured by the systems' receiver) using the system's RSSI (Received Signal Strength Indication) meter. The Control System will start measuring the RSSI level of the receiver every second, and it will display the result in levels from 1 to 9 – similar to the level of detector transmitter's signal strength. It is recommended that the gap between the RF noise level and the TX signal strength be at least 2. For example, if the RF RSSI level is 5 and the TX signal strength is 6, consider relocation of the Control System or its peripherals – see p. 7 2.1.1 Wireless Installation Guidelines.

The menu will have timeout of 5 minutes. If the installer doesn't exit the menu within 5 minutes of its entry, the Control System will exit all menus.

To view the RF RSSI level reading:

- From the Service menu, select RF & GSM level, RF RSSI level [7092]; the RF RSSI level of the Control System's receiver is displayed.

### 4.7.11. Display Version

To display the system's software and hardware versions:

- From the Service menu, select Version [710]; the software (SW) versions is displayed.

### 4.7.12. Enable Programming

The Enable Programming command enables a user with Master code authorization to grant access to system programming. This feature is relevant only if the Installer Access and/or the RP Access options are programmed as "User Initiated" – see p. 58, 9.11 and p. 65, RP Access Options.

To grant access to the installer or Remote Programmer:

- From the Service menu, select Enable Prog. [711]; a 30-minute time window is opened during which the Installer Code is valid or RP communication may be established.

### 4.7.13. Global Chime

The Chime feature causes the Control System's Built-In Siren to ring when specific zones are triggered. Using the Global Chime option, you can enable or disable this feature for all zones that are defined as Chime enabled – see p.42, 7.3.5 Chime.

To enable or disable Global Chime:

1. From the Service menu, select Global Chime [712].
2. Select either Enabled or Disabled.

Though the Service menu is accessible to the Master and Installer only, Global Chime can also be accessed via a convenient shortcut without needing to enter a valid user code. To access the Global Chime option from Standby mode, press ▲ then ▼.

### 4.7.14. Remote Firmware Update

The Remote Firmware Update command enables a user with Master code authorization to initiate the update. This feature is relevant only if the Remote Firmware Update mode is programmed as "User Initiated" – see p. 72, 10.8.4 Remote Firmware Update

To grant access to Remote Firmware Update:

- From the Service menu, select, SW Update [713]; a 24-hours time window is opened during which the Remote Firmware Update may be performed.

### 4.7.15. System Reset

System Reset feature can be accessed with Installer and Master Code. When accessed with Installer Code, reset message is registered in the log.

To Reset the System:

- From the Service menu, select System Reset [714]; the **OK?** confirmation message is displayed.

# 5. Telecontrol and Two-Way Audio

The CommPact Control System offers a range of Telecontrol features that provide remote access via the telephone. These features include Two-Way Audio, remote arming/disarming and cancel siren activation. This chapter explains these features and their operating procedures.

Telecontrol features can be separated into two fundamental groups; incoming and outgoing calls. These groups differ in their associated features.

## 5.1. Incoming Calls

The Control System can receive incoming calls from either the user or central station operator. Users may use this feature as a convenient way of contacting their family, operating their system or to check their home when they are away. Additionally, the monitoring service can contact the user in the event of an emergency or use this feature for listen-in alarm verification.

For any of the incoming Telecontrol features to function, Telecontrol must be enabled in the Communication Options section of the Programming menu – see p. 68, 10.6.9 Incoming Calls.

### 5.1.1. User Code Verification

To prevent unauthorized attempts to connect with the Control System, there are two user codes designed for use with the Telecontrol features. The Telecontrol code enables the user to establish communication with the Control System at any time. Additionally, the Central Station TWA Code is used exclusively for Two-Way Audio alarm verification and is only valid for a ten-minute period following an alarm.

### 5.1.2. Incoming Calls via PSTN

In the case of PSTN communication, the Control System often shares a line with regular telephone handsets, an answering machine or a fax machine. It is therefore important that the Control System distinguish between calls so that it knows when to pick up the relevant call. For this purpose the CommPact Control System employs a double call method.

To connect to the Control System using the double call method:

1. Dial the telephone number of the line connected to the Control System.
2. Wait for two or three rings and hang-up.
3. Wait at least five seconds and dial the number again; on the second ring, the Control System picks up and sounds two DTMF tones.

### 5.1.3. Incoming Calls via a Cellular Network

The Control System has its own individual telephone number and therefore, the double call method is not needed. In this case, the user or central station operator may call the Control System directly.

### 5.1.4. Telecontrol Call Procedure

The following procedure explains how to make a Telecontrol call. The conditions and procedure differ when using PSTN or Cellular Communication. For further information, see the entire section 5.1 Incoming Calls.

To make a Telecontrol call:

1. Call the Control System either using the double call method (PSTN) or directly (Cellular); when the Control System picks up, two DTMF tones are sounded.
2. Enter the Telecontrol code (Code 29) on your telephone within 15 seconds.

Do not enter your user code until you hear the two DTMF tones. Any digits entered before the tones are sounded are disregarded by the system.

3. A DTMF tone is sounded to indicate that the system is ready to receive commands.

   The following DTMF commands are available:

   - Press "2" for Two-Way Audio.

   If the TWA mode is defined as "Simplex" (see 69, 10.6.11, TWA Mode.), the audio channel opens in Listen mode (microphone active/speaker mute). To switch to Speak mode, press "**1**" on your telephone. To switch back to Listen mode, press "**0**" on your telephone.

During the TWA session, you can adjust the speaker volume using the arrow buttons.

   - Press "**3**" to fully arm the system.
   - Press "**430**" to activate PGM output (Unit 30)
   - Press "**530**" to deactivate PGM output (Unit 30)
   - Press "**6**" to disarm the system.
   - Press "**9**" to cancel the siren.

Arm/Disarm, PGM on/off, and Siren Canceling can also be executed at any time during a Two-Way Audio session.

Error beeps (three tones) sound in case of a wrong command.

To clear the last command, press "*" or "#".

   - The duration of the call is determined by the TC/VM Timeout -- see p.69, 10.6.10 Telecontrol/Vocal Message Timeout. Ten seconds before the timeout expires, two short DTMF tones are sounded. To extend the call, press "**7**" on your telephone. This command restarts the timeout.

4. To disconnect before the end of the timeout, press "*****" then "#" on your telephone.

### 5.1.5. Arm/Disarm DTMF Commands

During a Telecontrol call, you can arm and disarm the system remotely using the DTMF commands **3**" (arm) and "**6**" (disarm). When arming the system in this way, the system is armed immediately without an exit delay.

### 5.1.6. PGM DTMF commands

During a Telecontrol call, you can activate and deactivate PGM using the DTMF commands "**430**" (PGM On) and "**530**" (PGM Off).

### 5.1.7. Siren Cancel ("Bell Cancel")

The siren is muted during Two-Way Audio communication. At the end of the call, the siren is re-activated (if the Siren Cut-Off has not yet expired). During the call, pressing "**9**" on your telephone cancels the re-activation of the siren.

### 5.1.8. Central Station Two-Way Audio

Central Station Two-Way Audio is an alarm verification feature that enables the central station operator to establish Two-Way Audio communication with the Control System within ten minutes of an alarm.

To make a Central Station TWA call:

1. Call the Control System either using the double call method (PSTN) or directly (Cellular); when the Control System picks up, two DTMF tones are sounded.
2. Enter the Central Station TWA code (Code 30) on your telephone within 15 seconds.

Do not enter your user code until you hear the two DTMF tones. Any digits entered before the tones are sounded are disregarded by the system.

3. If the TWA mode is defined as "Simplex"(see p.69, 10.6.11 TWA Mode), the audio channel opens in Listen mode (microphone active/speaker mute). To switch to Speak mode, press "**1**" on your telephone. To switch back to Listen mode, press "**0**" on your telephone.
4. The duration of the call is determined by the TC/VM Timeout -- see p. 69, 10.6.10 Telecontrol/Vocal Message Timeout. Ten seconds before the timeout expires, two short DTMF tones are sounded. To extend the call, press "**7**" on your telephone. This command restarts the timeout.
5. To disconnect before the end of the timeout, press "*****" then "#" on your telephone.

## 5.2. Outgoing Calls

The CommPact Control System can make Two-Way Audio calls to the user or central station in the event of an alarm. This feature is designed for medical, panic alarms, and for alarm verification.

### 5.2.1. Service Call

The Service Call feature enables the user to establish a two-way audio connection with the central station operator. For further information on how to program this feature, see p. 66 , 10.5 Service Call.

To initiate a Service Call:

- Press the up arrow key ▲ press and hold Service Call key 0 for a few seconds.

  The Control System starts to dial.

### 5.2.2. TWA Alarm Reporting

In the event of Burglary, Fire and Medical alarms, the Control System is able to report the events and then stay on the line after acknowledgment is received (ACK 2). This allows the operator to verify the alarm or provide assistance in the event of an emergency.

For this feature to function, you must enable Two-Way Audio for both the account and the event group.

The sequence for Two-Way Audio during alarm reporting is as follows:

1. An alarm event is sent to the central station and acknowledgment is received (ACK 2).
2. If Two-Way Audio is enabled for the account and event group, the Control System stays on the line and opens the audio channel.
3. If the TWA mode is defined as "Simplex" (see p.69, 10.6.11 TWA Mode), the audio channel opens in Listen mode (microphone active/speaker mute). The operator may switch to Speak mode, by pressing "**1**" on their telephone. Pressing "**0**" switches back to Listen mode.
4. The duration of the call is determined by the TWA/VM Timeout. Ten seconds before the timeout expires, two short DTMF tones are sounded. To extend the call, the operator presses "**7**" on their telephone. This command restarts the timeout.
5. To disconnect before the end of the timeout, the operator presses "*****" then "#" on their telephone.

If multiple events are sent, the Control System sends all the events before opening the audio channel.

When using the SIA protocol for event reporting, this feature functions in "listen-in" mode only.

### 5.2.3. Two-Way Audio after Vocal Messages

If Two-Way Audio is enabled for a Vocal Message account, the user can open the audio channel by pressing "**2**" on their telephone after the system has played all of the event messages.

The sequence for Two-Way Audio after a vocal message is as follows:

1. An event occurs and the Control System calls the telephone number of the first Voice Report Account chosen.
2. When the user answers the call, the Home ID message and the relevant event message are played.
3. If Two-Way Audio is enabled for the Voice Report account, the user presses "**2**" on their telephone to open the audio channel.
4. The duration of the call is determined by the TWA/VM Timeout. Ten seconds before the timeout expires, two short DTMF tones are sounded. To extend the call, the user presses "**7**" on their telephone. This command restarts the timeout.
5. To disconnect before the end of the timeout, the user presses "*****" then "#" on their telephone.

### 5.2.4. TWA Follow-Me

The TWA Follow-Me feature is designed to establish a Two-Way Audio connection with the user in the event of an alarm. For this feature to function, the account's protocol must be defined as TWA Follow-Me.

The sequence for a Two-Way Audio Follow-Me call is as follows:

1. An alarm occurs.
2. The Control System dials the programmed telephone number and sounds two DTMF tones when you pick up the call.
3. Press "**2**" on your telephone; the Control System opens the audio channel.

If you press "9" to answer the call, the Control System simultaneously cancels the siren when opening the audio channel.

4. If the TWA mode is defined as "Simplex", (see p. 67, 10.6.11 TWA Mode), the audio channel opens in Listen mode (microphone active/speaker mute). To switch to Speak mode, press "**1**" on your telephone. To switch back to Listen mode, press "**0**" on your telephone.
5. The duration of the call is determined by the TWA/VM Timeout. Ten seconds before the timeout expires, two short DTMF tones are sounded. To extend the call, press "**7**" on your telephone. This command restarts the timeout.
6. To disconnect before the end of the timeout, press "*****" then "#" on your telephone.

# 6. PGM Control

The purpose of this chapter is to explain the various methods used to control PGM output. PGM is a programmable output that is triggered according to specific system status conditions, or by remote command sent via PSTN, GSM, keyfobas explained below.

## 6.1. Keyfob Control

You can control PGM using any of the four button keyfobs registered to the system. For further information on how to assign keyfob B2 button to PGM, see p. 44, 7.4.2 PGM Assignment.

## 6.2. Telephone Control

You can send On and Off commands to PGM output by SMS messages sent from a cellular phone to the Control System. Alternatively, PGM can be controlled by DTMF commands during Telecontrol call (either cellular or landline). For this feature to function correctly, Telephone control must be enabled for PGM – see p.55, 9.6.1 Output Trigger.

### 6.2.1. DTMF Command

Using the Telecontrol feature, you can turn on and off PGM output via the telephone with DTMF commands. For further information on the Telecontrol features, see p. 34 5 Telecontrol and Two-Way Audio and PGM DTMF commands.

### 6.2.2. SMS Command Format

Each SMS command for PGM control must contain the following elements:

- ✚ SMS Command Descriptor (**Optional**, up to 43 characters of free text)
- ✚ Delimiter **#** (**Mandatory**, separates the descriptor from the actual command)
- ✚ User Code (4 digits)
- × Command (0=Off, 1=On)
- × Device Number (30 for PGM output)

The following example shows the format of an SMS command to switch PGM On.

| ❶ | | | | | | ❷ | ❸ | | | | ❹ | ❺ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | G | M | | O | N | # | 1 | 2 | 3 | 4 | 1 | 3 | 0 |

⚠ **While the SMS Command Descriptor is optional, you must start the SMS command with the # symbol for the system to accept the command.**

### 6.2.3. SMS Confirmation Message Format

After an SMS command is executed, the system can return a confirmation SMS message to the sender. This message includes the PGM descriptor and the command that was sent. For further information on how to enable this feature, see p. 71, 10.7.5 SMS Confirmation.

This message is sent when the parameter 'SMS Confirm' (Programming, Communications, Comm. Options, GSM Options, SMS Confirm [954135]) is Enabled.

The following example shows the confirmation message the sender receives for the sample command from the previous section:

| P | G | M | | O | N |
|---|---|---|---|---|---|

# 7. Devices

This chapter explains how to register devices to the system and the programming options for each device. For further information, please refer to the installation instructions included with each device.

## 7.1. Device Descriptors

You can assign a 16-character descriptor to each device except the Wireless Siren. These descriptors help identify the devices when you operate and program the system.

To edit a device descriptor:

1. From the Programming menu, select Devices [91].
2. Select a device type.
3. From the device's sub-menu, select Descriptor.
4. Edit the descriptor using the alphanumeric keypad.
5. Press '√' when you have finished editing.

## 7.2. Wireless Devices

### 7.2.1. Registering Wireless Devices

For the system to recognize individual devices, each device must be registered to the system. For example, if the device is a wireless transmitter, registration enables the system to identify the source of a received transmission. Each device has an individual encrypted ID code. Registering the device to the system familiarizes the system with this code.

To register a device to the system:

1. From the Programming menu, select Devices [91].
2. Select the type of transmitter you want to register. For example, if you want to register a wireless detector to a zone, select Zones.
3. Select the specific device you want to register (for example, Zone 4); the system initiates Registration mode. During Registration mode, the system waits for two transmissions from the device.

If a device has already been registered at the selected location, the system will not initiate Registration mode. If the device has already been registered at another location, attempts to register it are ignored by the system. Zones 1-32 are intended for wireless detectors by default.

4. Register the device – refer to each device's installation instructions in Appendix B for further details.
5. When two transmissions have been received, **Save?** is displayed.
6. Press '√' to confirm registration.

### 7.2.2. Deleting Wireless Devices

When you want to remove a device from the system, you have to delete the device. It is important to delete unused devices for two reasons. Firstly, you have to delete a device before you can register a new transmitter in its place. Secondly, if the device is a wireless detector, it is important to delete the device so that the system will not react to the transmitter's failure to send supervision signals.

To delete a device:

1. From the Programming menu, select Devices, [91].
2. Select the specific device you want to delete.
3. From the device's sub-menu, select Delete.
4. Press '√' to confirm; the device is deleted.

### 7.2.3. Supervision Time

The detectors in Electronics Line 3000's supervised wireless range send a supervision signal approximately 20 minutes after its last transmission. If the system does not receive supervision signals from a specific transmitter, the transmitter is regarded as inactive.

The amount of time after which a transmitter is considered inactive is called the Supervision Time. There is a separate supervision time for general transmitters and devices that are registered to Fire zones.

To program the Supervision Time for general transmitters:

1. From the Programming menu, select Devices, Superv. Time, General [9161].
2. Enter a supervision time between 02:00 and 23:59 hours.

To program the Supervision Time for transmitters registered to Fire zones:

1. From the Programming menu, select Devices, Superv. Time, Fire [9162].
2. Enter a supervision time between 02:00 and 23:59 hours.

### 7.2.4. Re-Synchronization

Transmissions that are out of synchronization are rejected by the system. For example, it is not possible to arm or disarm the system using a keyfob that is out of synchronization. In the event that a transmitter is out of synchronization, it is possible to re-synchronize the transmitter and restore normal operation.

To re-synchronize transmitters:

- From the Programming menu, select Devices, TX Re-synch [917]; a 10-minute time window is opened.

  During the 10-minute time window, if a transmission is received that is out of synchronization, the transmitter is re-synchronized.

## 7.3. Zones

The CommPact Control System supports Electronics Line 3000's supervised wireless range of transmitters that includes various PIR detectors, magnetic contacts and smoke detectors. All these transmitters send supervision signals to the Control System's receiver in order to indicate that the transmitter is functional.

Control System includes 33 security zones. Zones 1-32 are intended for wireless detectors by default. Only one detector can be registered to each zone.

Zone 33 is an on-board hardwire zone. This zone is programmed in the same way as the wireless zones with the exception of registration and deletion.

This section explains the programming exclusive to detectors. For information on registration, descriptor editing, and deletion, see p. 38, 7.1, 7.2.1, 7.2.2. The zone menu is displayed according to the zone type (see below).

Most of the programming options are identical for hardwire and wireless zones with the following exceptions:

*Wireless Zones*

- Register (see: p. 38, 7.2.1 Registering Wireless Devices)
- Delete (see: p. 38, 7.2.2 Deleting Wireless Devices)
- Repeater (see: p. 43, 7.3.7 Repeater)

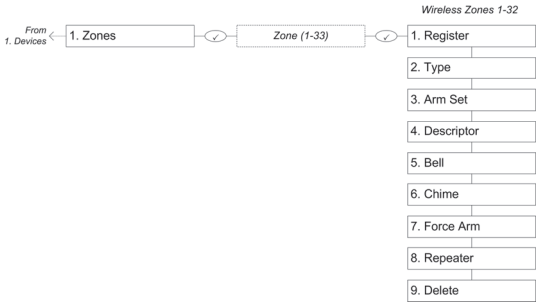



**Figure 7-1: Wireless Zone Menu**

*Wired Zone 33*

- Loop Type (see p. 43, 7.3.8, Loop Type)

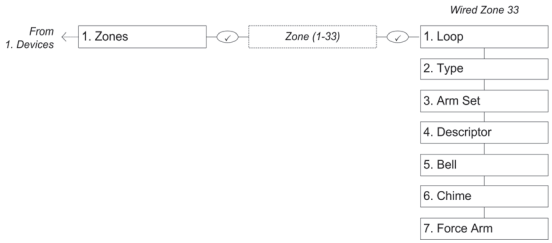



**Figure 7-2: Wired Zone Menu**

### 7.3.1. Zone Type

The zone type defines the type of alarm the system generates when the detector is tripped.

To program a zone type:

1. From the Programming menu, select Devices, Zones [911].
2. Select the detector you want to program.
3. From the detector's sub-menu, select Zone Type [#02].
4. Select one of the following zone types:

- Normal
- Entry/Exit
- Follower
- Panic
- Medical
- Fire
- 24H
- 24Hr-X (future option)
- Gas
- Flood
- Environmental
- No Motion
- Not Used

☞ No Motion zone shall be used with a PIR detector only.

For a detailed explanation on the function of each zone type, see p. 148, Appendix D: Event Table.

### 7.3.2. Arm Set

The Arm Set option allows you to define the arming methods in which the zone is included.

Each zone can be assigned to Full Arming and/or to Part and/or to Perimeter Arming in any combination.

The following table summarizes arm set options:

**Table 7-1: Arm Set Options**

| Arm Set | Description |
|---|---|
| 1 (F) | The zone is included in Full arming. |
| 2 (P) | The zone is included in Part arming. |
| 3 (PE) | The zone is included in Perimeter arming. |

To program the Arm Set option:

1. From the Programming menu, select Devices, Zones [911].
2. Select the zone you want to program.
3. From the zone's sub-menu, select Arm Set [#03]; the zone's current Arm Set setting is displayed.
4. Use the keys 1, 2 and 3 to toggle the current setting.

☞ It is not necessary to program this option for Panic, Medical, Emergency, Fire, 24Hr, Gas, Flood and Environmental zones.

### 7.3.3. Descriptor

For information on device descriptor editing, see p. 38, 7.1 Device Descriptors

### 7.3.4. Bell (Siren)

Each zone can be programmed to activate the siren when triggered or to generate a silent alarm where only a message is sent to the central station.

To program the Bell option:

1. From the Programming menu, select Devices, Zones [911].
2. Select the zone you want to program.
3. From the zone's sub-menu, select Bell [#05]; the zone's current Bell setting is displayed.
4. Select either Enabled or Disabled.

Fire zones always activate the siren regardless of what is programmed for this option.

If the bell is disabled for Panic zones, this also disables all forms of alarm indication from the on-board keypad in the event of a Panic alarm.

If the Bell option is enabled for Environmental or Flood zones, the system sounds trouble tones from the keypad.

### 7.3.5. Chime

When Chime is enabled, triggering the zone when the system is disarmed causes the Built-In Siren to chime.

To program the Chime option:

1. From the Programming menu, select Devices, Zones [911].
2. Select the zone you want to program.
3. From the zone's sub-menu, select Chime [#06]; the zone's current Chime setting is displayed.
4. Select either Enabled or Disabled.

### 7.3.6. Force Arm

Force arming enables you to arm the system when the system is not ready. For example, a door that is protected by a magnetic contact is open. You may arm the system on condition that the zone is defined as Force Arm enabled. This door must be closed by the end of the Exit delay otherwise an alarm is generated. If the magnetic contact's zone is defined as Force Arm disabled, the system will not be ready to arm until you close the door.

To program the Force Arm option:

1. From the Programming menu, select Devices, Zones [911].
2. Select the zone you want to program.
3. From the zone's sub-menu, select Force Arm [#07]; the zone's current Force Arm setting is displayed.
4. Select either Enabled or Disabled.

For the Force Arm feature to function, you must also enable Force Arming in System Options -- see p. 52, 9.2.1 Forced Arm.

### 7.3.7. Repeater (Wireless Zones Only)

The EL-2635 repeater is an additional module that extends the range of the wireless transmitters. For a detector to use the repeater to relay transmissions to the system, you must define the Repeater option for its zone as "Use Repeater".

To program the Repeater option:

1. From the Programming menu, select Devices, Zones [911].
2. Select the zone you want to program.
3. From the zone's sub-menu, select Repeater [#09]; the zone's current Repeater setting is displayed.
4. Select either No Repeater or Use Repeater.

☞ Do not register the same transmitter to more than one repeater.

### 7.3.8. Loop Type (Wired zone 33 only)

This option enables you to determine the zone's loop type.

The Control System supports the following Loop Types:

- Normally Closed (N.C.) – alarm on open, restore on close
- Normally Open (N.O.) – alarm on close, restore on open
- End of Line Resistor (E.O.L.R.) – alarm on short, alarm on open, restore on close
- Double End of Line Resistor (D.E.O.L.R) – alarm on short, alarm on open, restore on close, and tamper alarm on tamper.

The zone Loop Types must be defined accordingly at each zone's programming parameters.

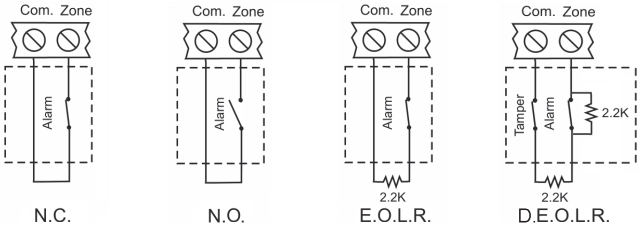



**Figure 7-3: Loop Types**

To program the Loop Type option:

1. From the Programming menu, select Devices, Zones [911].
2. Select the zone you want to program.
3. From the zone's sub-menu, select Loop [#01]; the zone's current Loop type setting is displayed.
4. Select N.O., N.C., or E.O.L.R, or D.E.O.L.R.

## 7.4. Keyfobs

The CommPact Control System supports four types of keyfob transmitter, EL-2711M, EL-2711P, EL-2614E and EL-2714. You can register up to 19 keyfobs to the system. Figure 7-4 illustrates two of these transmitters and the functions assigned to their buttons. For information on registration and deletion, see p. 38, 7.2. Wireless Devices. For descriptor editing, see p. 38, 7.1 Device Descriptors.


**Figure 7-4: Keyfob Button Assignments**

The following sections explain the programming options exclusive to the EL-2714 and EL-2614E keyfob transmitters. These programming options are not relevant to the EL-2711M and EL-2711P.

For panic Alarm activation with the keyfob, see p. 21, 3.7.7, Alarm Activation.

### 7.4.1. Keyfob Type

You can define each registered keyfob as Controlled or Non-controlled. A Controlled keyfob causes the system to send arm/disarm event messages to the central station. Non-controlled keyfobs never send arm messages and send a disarm message only if the system is disarmed after an alarm occurrence.

To program a keyfob type:

1. From the Programming menu, select Devices, Keyfobs [912].
2. Select the keyfob you want to program.
3. From the keyfob's sub-menu, select Type [#2]; the current setting is displayed.
4. Select Controlled or Non-controlled.

### 7.4.2. PGM Assignment

The EL-2714 and EL-2614E allows programming B2 button to control PGM. When PGM Assign function is enabled, B2 is used for PGM control; when PGM Assign is disabled, B2 is used for Perimeter arming.

To program B2 button:

1. From the Programming menu, select Devices, Keyfobs [912].
2. Select the keyfob you want to program.
3. From the keyfob's sub-menu, select PGM Assign [#4].
4. Select Enable for PGM Operation or Disable for Perimeter Arm.

## 7.5. Wireless Keypads

The system supports up to four wireless keypads: 1-Way Wireless Keypad (EL-2620) and Wireless Indication Keypad (EL-2621).

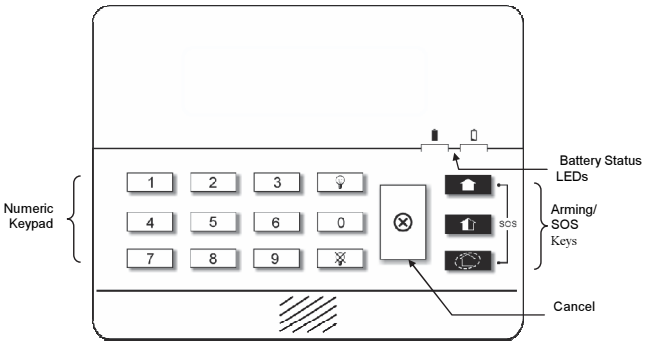



**Figure 7-5: EL-2620 Keypad Layout**

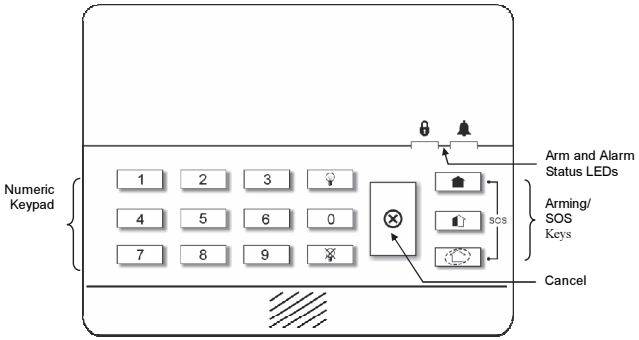



**Figure 7-6: EL-2621 Keypad Layout**

*Keypad SOS Panic Alarm Activation*

Using any of the wireless keypads, you can activate an SOS Panic alarm by pressing the Full and Perimeter arming keys simultaneously. Figure 7-7 illustrates how to activate an SOS Panic alarm on the EL-2620 wireless keypad.

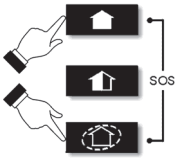



**Figure 7-7: SOS Panic Alarm Activation (EL-2620/2621)**

## 7.6. Repeaters

Repeaters are designed to extend the wireless range of the Control System. Up to four repeaters may be registered to the system with a maximum of 32 transmitters associated with each receiver. For information on registration, deletion, and descriptor editing, see p. 134.

## 7.7. Wireless Siren

The Control System sends alarm and arm status information to the wireless siren's receiver. This requires that you register the Control System to the wireless siren's receiver.

To register the Control System to the wireless siren's receiver:

1. Set the wireless siren's receiver to Registration mode – refer to the siren's installation instructions for further information.
2. Activate the siren using the WL Siren Test feature – see p.28, 4.7.3 Wireless Siren Test.
3. Activate the siren again; the Control System is registered to the siren's receiver.

2-way sirens must be registered to the Control System. For information on registration and deletion, see p. 38, 7.2.1 Registering Wireless Devices, and p. 38, 7.2.2 Deleting Wireless Devices.

### 7.7.1. Wireless Siren Type

The Control System supports 2-way wireless sirens. For this feature to function correctly, you must define the wireless siren type in programming.

The following options are available:

- 2-Way Siren – if using the EL-2626AC wireless siren.
- 2-Way Siren/Kpd – if using the EL-2626AC wireless siren and EL-2621 wireless indication keypad.

To program the wireless siren type:

1. From the Programming menu, select Devices, Siren, WL Siren Type [9152].
2. Select a siren type or No WL Siren if no siren is installed.

### 7.7.2. Wireless Siren Delay

The Wireless Siren Delay is the period of time during which the wireless siren is not sounded after an alarm is triggered by Normal, Follower or 24Hr zones. This feature is implemented only when the system is not fully armed. During the Wireless Siren Delay, the Control System's built-in siren is sounded but the alarm report is not sent until the delay has expired. This gives the user enough time to disarm in the event that the alarm was accidentally triggered during Part or Perimeter arming. If the user disarms the system during the Siren Delay, an alarm event is not reported to the central station.

To program the Wireless Siren Delay time:

1. From the Programming menu, select Devices, Siren, WL Siren Delay [9153].
2. Enter a Siren Delay time (00-63 seconds), then press '√'.

### 7.7.3. Siren Cut-Off

The Siren Cut-Off is the period of time the sirens are activated after an alarm has occurred. You may program a Siren Cut-Off time in the interval between ten seconds to twenty minutes.

To program the Siren Cut-Off time:

1. From the Programming menu, select Devices, Siren, Cut-Off [9154].
2. Enter a Siren Cut-Off time MM:SS (00:10 - 20:00), then press '√'.

### 7.7.4. Wired Siren

When the system generates an audible alarm, both the wired Built-In Siren and the wireless siren are sounded. This option allows you to disable the alarm from the Control System's Built-In Siren. If disabled, the Control System's built-in siren may still be used to sound arm/disarm and entry/exit tones.

To program the Wired Siren option:

1. From the Programming menu, select Devices, Wired Siren [9155].
2. Select Enabled or Disabled.

# 8. Entry/Exit Timers and System Tones

This chapter explains how to program the time of the Entry/Exit delays and the tones sounded by the Built-In Siren and wireless siren during Exit/Entry Delays, arming, disarming, and when a trouble condition is present.

## 8.1. Entry/Exit Delay

The Entry/Exit delay timers determine the amount of time the user has to arm or disarm the system before an alarm is activated.

You can program separate Entry and Exit delays for each arming method.

To program Exit delay timers:

1. From the Programming menu, select Entry/Exit, Exit Delays [921].
2. Select the Exit delay you want to program: Full [#1], Part [#2] or Perimeter [#3]
3. Enter a delay time (000-255 seconds), then press '√'.

To program Entry Delay timers:

1. From the Programming menu, select Entry/Exit, Entry Delays [922].
2. Select the Entry Delay you want to program: Full [#1], Part [#2] or Perimeter [#3]
3. Enter a delay time (000-255 seconds), then press '√'.

## 8.2. Arm on Exit

The Arm on Exit feature cancels the unnecessary remainder of the Exit delay that continues to count down after the user has vacated the premises. This feature automatically arms the system when an Entry/Exit zone is closed during the Exit delay.

To program the Arm on Exit option:

1. From the Programming menu, select Entry/Exit, Arm On Exit [923].
2. Select Enabled or Disabled.

## 8.3. Supplementary Entry Delay

The Supplementary Entry Delay is a pre-alarm feature that is employed in the event that the system is not disarmed during the entry delay. When the entry delay expires, the Control System's Built-In Siren is sounded during an additional entry delay period. At the end of the supplementary entry delay, the system generates a full alarm condition; the wireless siren is sounded and an alarm event is reported to the central station.

To program the Supplementary Entry Delay setting:

1. From the Programming menu, select Entry/Exit, Supp. Ent. Delay [924].
2. Select Enabled or Disabled.

## 8.4. Entry Deviation

Entry Deviation is a pre-alarm feature employed in the event that a detector defined with the Normal zone type is opened during the entry delay. In this case, the Control System's Built-In Siren is sounded until the end of the entry delay period. Failure to disarm by the end of the entry delay causes the system to generate an alarm.

To program the Entry Deviation setting:

1. From the Programming menu, select Entry/Exit, Ent. Deviation [925].
2. Select Enabled or Disabled.

## 8.5. Arming Tones

Arming tones are the tones sounded by the Control System's Built-In Siren and/or the wireless siren when arming and disarming the system. Each set of tones can be enabled or disabled according to the requirements of the installation.

### 8.5.1. Exit Delay Tones

To program tones sounded by the wireless siren during the Exit delay:

1. From the Programming menu, select Tones, Exit Tones, WL Siren [9311].
2. Select Enabled or Disabled.

To program tones sounded by the Built-In Siren during the Exit delay:

1. From the Programming menu, select Tones, Exit Tones, Siren [9312].
2. Select No Tones, Four Tones or Continuous Tones.

### 8.5.2. Entry Delay Tones

To program tones sounded by the wireless siren during the Entry Delay:

1. From the Programming menu, select Tones, Entry Tones, WL Siren [9321].
2. Select Enabled or Disabled.

To program tones sounded by the built-in siren the Entry Delay:

1. From the Programming menu, select Tones, Entry Tones, Siren [9322].
2. Select No Tones, Four Tones or Continuous Tones.

### 8.5.3. Arming Tones

To program tones sounded by the wireless siren on arming:

1. From the Programming menu, select Tones, Arm Tones, WL Siren [9331].
2. Select Enabled or Disabled.

To program tones sounded by the Built-In Siren on arming:

1. From the Programming menu, select Tones, Arm Tones, Siren [9332].
2. Select Enabled or Disabled.

### 8.5.4. Disarming Tones

To program tones sounded by the wireless siren on disarming:

1. From the Programming menu, select Tones, Disarm Tones, WL Siren [9341].
2. Select Enabled or Disabled.

To program tones sounded by the Built-In Siren on disarming:

1. From the Programming menu, select Tones, Disarm Tones, Siren [9342].
2. Select Enabled or Disabled.

## 8.6. System Trouble Tones

System trouble tones are sounded to provide an audible indication that a system trouble condition exists. On hearing these tones the user is then able to determine which trouble condition is present from the front panel keypad. For additional information, see p. 16, 3.5.1 System Trouble Tones.

### 8.6.1. Trouble Tones

The Trouble Tones option allows you to enable or disable audible trouble annunciation.

To program the Trouble Tones option:

1. From the Programming menu, select Tones, Trouble Tones [936].
2. Select Enabled or Disabled.

### 8.6.2. Telephone Trouble Tones

Most trouble tones are not sounded between 10:00pm and 7:00am so as not to disturb the user late at night. Telephone trouble, however, may be an attempt to sabotage the system by cutting the telephone wires. For this reason, you can program telephone trouble tones to sound at all times.

To program the Telephone Trouble Tones option:

1. From the Programming menu, select Tones, Tel. Trb. Tones [937].
2. Select Immediate or Delayed.

### 8.6.3. Fire Trouble Tones

The Fire Trouble Tones option is a feature designed to repeat fire-related trouble tones until the problem has been taken care of. If this feature is enabled, fire trouble tones will be repeated 3½ hours after the user has manually silenced the tones if the trouble condition has not been restored.

To program the Fire Trouble Tones option:

1. From the Programming menu, select Tones, Fire Trb. Tones [937].
2. Select Enabled or Disabled.

It is not possible to program the Telephone Trouble Tones and Fire Trouble Tones options if the Trouble Tones option is programmed as disabled.

## 8.7. Tones Options

### 8.7.1. Tones Output

The Tones Output option enables you to determine whether the tones sounded when arming and disarming are sounded by the Control System's Built-In Siren or its built-in speaker.

To program the Tones Output option:

1. From the Programming menu, select Tones, Tones Options, Tones Output [9381].
2. Select Siren or Speaker.

### 8.7.2. Speaker Volume

The Speaker Volume option determines the volume level of the tones sounded by the speaker.

To program the Speaker Volume option:

1. From the Programming menu, select Tones, Tones Options, Speaker Vol. [9382].
2. Select High or Low.

It is not necessary to program the Speaker Volume option if "Siren" is selected for the Tones Output option.

# 9. System Options

As the name suggests, System Options are settings that affect the entire system. This chapter offers explanations and programming instructions for each of these options.

## 9.1. Code Lockout

The Code Lockout option locks the keypad for 30 minutes if five unsuccessful attempts are made to enter the user code.

To program the Code Lockout setting:

1. From the Programming menu, select System Options, Code Lockout [9401].
2. Select Enabled or Disabled.

During the 30-minute lockout period, you can still arm and disarm the system using keyfobs. If one key arming is enabled, you may still arm the system using the keypads.

## 9.2. Arm/Disarm Options

The options offered in this section relate to arming and disarming the system.

### 9.2.1. Forced Arm

Forced arming enables you to arm the system when the system is not ready. This option allows you to enable or disable Forced arming for the entire system. Additionally, you can enable or disable Forced arming for each individual zone. For further information, see p. 42, 7.3.6 Force Arm.

To program the Forced Arm setting:

1. From the Programming menu, select System Options, Arm/Disarm, Forced Arm [94021].
2. Select Enabled or Disabled.

### 9.2.2. One-Key Arming

You can arm the system by pressing any of the three arming keys on the keypad. If One-Key Arming is enabled, the system does not prompt you for a user code.

To program the One-Key Arming setting:

1. From the Programming menu, select System Options, Arm/Disarm, and One-Key Arming [94022].
2. Select Enabled or Disabled.

### 9.2.3. Supervised Arm

The Supervised Arm option is a feature designed to supervise a wireless device activity before you arm the system. If the system has not received a transmission from a detector during the interval defined for this option, all arming methods that include that detector will not be available. Medical, Panic, Fire, Gas, Flood, and Environmental zones are not included in this supervision and do not affect the system's ability to arm.

Press ▼ to check which detector is causing the "System Not Ready" condition.

To make the required arming method available, activate the detector. PIR detectors have a three-minute delay between transmissions.

If activating the detector does not help, there may be a problem with the detector. You can bypass the faulty detector's zone to allow system arming until the problem is remedied – see p. 23, 4.3 Zone Bypassing/Unbypassing.

Zone bypassing is valid for one arming period only. All bypassed zones are automatically unbypassed when the system is disarmed.

To program the Supervised Arm interval:

1. From the Programming menu, select System Options, Arm/Disarm, Superv. Arm [94023].
2. Enter a Supervised Arm interval (001-255 minutes or 000 to disable the Supervised Arm option).

Do not program a Supervised Arm interval that is less than the detector's supervision time

### 9.2.4. Instant Arming

Instant arming is a feature that allows you to cancel the entry delay after arming the system – see p. 20, 3.7.2 Instant Arming. The feature is designed for use in situations where the system's perimeter is armed and nobody is expected to enter the premises from outside during the armed period.

To enable/disable the Instant Arm option:

1. From the Programming menu, select System Options, Arm/Disarm, and Instant Arming [94024].
2. Select Enabled or Disabled.

### 9.2.5. Keyfob Disarm

The Keyfob Disarm option enables you to determine whether it is possible for the user to disarm the system using their keyfob at all times or during the entry delay only.

This feature can be applied only after the system has been fully armed.

1. From the Programming menu, select System Options, Arm/Disarm, KF Disarm [94025].
2. Select Always or On Entry.

### 9.2.6. Supervised Arm Mode

For the Supervised Arm option, you can choose whether the Control System waits for a transmission of all the devices included in this supervision, or from at least one of them – see p. 52, 9.2.3 Supervised Arm.

To program the Supervised Arm mode:

1. From the Programming menu, select System Options, Arm/Disarm, and Super Arm Mode [94026].
2. Select All Reg. Devices or Any Reg. Devices.

## 9.3. Panic Alarm

SOS Panic alarms generated from the front panel, keypads or keyfobs can be defined as either audible or silent.

To program the Panic Alarm setting:

1. From the Programming menu, select System Options, Panic Alarm [9403].
2. Select Audible or Silent.

## 9.4. AC Loss Delay

The AC Loss Delay is the amount of time that has to elapse before an AC Loss report is sent to the central station. If AC power is restored before the event message is sent, the event message is canceled and will not be sent. You can program an AC Loss Delay to be between 1 and 255 minutes after the system first senses the AC loss condition. Alternatively you can program a random AC Loss Delay.

The AC Restore message is also sent using the same method described above. AC Restore is reported only if the AC Loss report was sent.

To program the AC Loss Delay:

1. From the Programming menu, select System Options, AC Loss Delay [9404].
2. Enter a delay time (001-255 minutes) or enter 000 if you require the system to choose a random AC Loss Delay, and then press '√'.

### 9.4.1. Random AC Loss Delay

In the event of AC loss, an event message is sent to the central station between 15 and 30 minutes after the AC loss condition is sensed. The system chooses this delay at random in order to prevent the central station being inundated by simultaneous AC Loss reports in the event of a regional power cut.

## 9.5. Display Options

The following options relate to the information the system displays on the front panel keypad.

### 9.5.1. Arm Status Display

The Arm Status Display includes the current arm status and any trouble conditions that may exist within the system. You can program the system to display this information at all times, only for two minutes, or only for 30 seconds after arming or disarming the system.

To program the Arm Status Display options:

1. From the Programming menu, select System Options, Display, and Arm Status [94051].
2. Select Display Always, Display 2 Min, or Display 30 sec.

### 9.5.2. Banner

The Banner is the 16-character text that you can program to appear on the top row of the LCD display. This text replaces the arm status if it is programmed to display for two minutes or 30 seconds only – see p.54, 9.5.1 Arm Status Display.

To edit the Banner text:

1. From the Programming menu, select System Options, Display, and Banner [94052].
2. Edit the Banner text using the alphanumeric keypad, then press '√'.

**The system never displays the Banner text if the Arm Status Display option is programmed** as Always.

### 9.5.3. Time/Date Format

This option determines the format in which the time and date are displayed.

The following options are available:

- DD/MM/YY, 24Hr
- DD/MM/YY, 12Hr
- MM/DD/YY, 24Hr
- MM/DD/YY, 12Hr

To program the Time/Date format:

1. From the Programming menu, select System Options, Display, and Time Format [94053].
2. Select the required format from the options available.

### 9.5.4. Supervision Loss Indication

This option enables you to select whether the system trouble display will indicate transmitter supervision loss to the user.

To program the Supervision Loss Indication setting:

1. From the Programming menu, select System Options, Display, and SV Loss Ind. [94054].
2. Select Enabled or Disabled.

## 9.6. PGM Output Options

The PGM is a programmable output that is triggered according to specific system status conditions, or by remote command sent via PSTN, GSM, keyfob, RP, or via Internet (ELAS versions 321 and above).

### 9.6.1. Output Trigger

The Output Trigger option determines the conditions that activate and deactivate the PGM output.

To program the Output Trigger:

1. From the Programming menu, select System Options, PGM Options, and Output Trigger [94061].
2. Select an Output Trigger option from the following table.

**Table 9-1: PGM Output Trigger Options**

| Trigger Option | Activated by… | Deactivated by… |
|---|---|---|
| PGM Not Used | The PGM output is disabled | |
| Full Arm | System "Full" armed | System disarmed or PGM Cut-off |
| Perimeter Arm | System "Perimeter" armed | |
| Part Arm | System "Part" armed | |
| Arm Status | Any arming method | |
| Power Trouble | AC Loss or Low Battery conditions | AC restore or Battery restore |
| Tel. Line Trouble | Telephone line supervision trouble | Telephone line restore |
| System Trouble | System trouble condition | System trouble restore |
| Medical | Medical alarm | Any arming method, system disarmed or PGM Cut-off |
| Burglary | Burglary alarm | |

| Trigger Option | Activated by… | Deactivated by… |
|---|---|---|
| Fire Alarm | Fire alarm | |
| Zone Status* | Open zones (steady)<br>Bypassed zones (pulsing) | All zones closed and no zones bypassed |
| Entry/Exit | Entry/Exit delay follower | |
| Siren | Built-In Siren follower | |
| WL Siren | Wireless siren follower | |
| Telecontrol | Remote PGM activation (PSTN/GSM/keyfob/RP, or via Internet in ELAS versions 321 and above) | |

For certain trigger options, deactivation may be determined by the PGM Cut-off -- see p. 57, 9.6.4 PGM Cut-off. If the PGM Cut-off is programmed as 000 (continuous activation), the PGM output shall remain activated until it is toggled by the relevant change in system status.

### 9.6.2. Output Type

The Output Type option determines whether the PGM output produces a steady or pulsed output.

To program the Output Type:

1. From the Programming menu, select System Options, PGM Options, and Output Type [94062].
2. Select Steady or Pulsed.

The Zone Status, Siren and WL Siren trigger options have a fixed Output Type; there is no need to program an Output Type for these options.

### 9.6.3. Polarity

You can determine the polarity of the PGM output from the following two options:

- Active High: The output is normally off and is switched on when activated.
- Active Low: The output is normally on and is switched off when activated.

To program the Polarity:

1. From the Programming menu, select System Options, PGM Options, and Polarity [94063].
2. Select Active High or Active Low.

---

* Zone Status functions only when the system is disarmed.

### 9.6.4. PGM Cut-off

The PGM Cut-off is the duration for which the PGM is activated. Certain Output Trigger types are deactivated after the PGM Cut-off time has expired– see p. 55, Table 9-1. For those Output Trigger types that are not affected by the PGM Cut-off, there is no need to program this option.

If, for example, Output Trigger option is set to Full Arm, and PGM Cut-off time is 060 seconds; then PGM is activated by Full Arming and deactivated by disarming or by PGM Cut-off Time, whichever comes first. If this option is set to "000" (Continuous activation), PGM is activated by Full Arming, and deactivated by disarming.

To program the PGM Cut-off time:

1. From the Programming menu, select System Options, PGM Options, and PGM Cut-off [94064].
2. Enter a PGM Cut-off time (001-255 seconds or 000 for continuous activation), then press '√'.

## 9.7. "No Arm" Indication

The "No Arm" indication is a feature designed to inform the central station that the system has not been armed for a specified period of time.

To define the "No Arm" indication interval:

1. From the Programming menu, select System Options, No Arm Ind. [9408].
2. Select 1 Week, 2 Weeks, 3 Weeks, 4 Weeks or Disabled.

☞ The No Arm event message is an unclassified event. This means that it does not belong to any event group. If the No Arm option is programmed with any option other than "Disabled", the event message will be sent.

## 9.8. Jamming Detection

The system is able to detect RF Jamming that is usually caused by an intruder attempting to compromise the security system.

To program the Jamming Detection setting:

1. From the Programming menu, select System Options, Jamming Det. [9409].
2. Select Enabled or Disabled.

## 9.9. "No Motion" Time

The No Motion feature is designed to monitor the activity of disabled or elderly people.

If a detector defined as No Motion (see p. 35, 7.3.1 Zone Type):

- When the system is disarmed, and the detector has not been triggered within a pre-defined period of time (00:00 to 72:00 hours), a No Motion event message is sent to the central station.
- When the system is armed, this zone behaves as Normal.

☞ The No Motion zone must be included in this arming mode – see p. 41, 7.3.2 Arm Set.

To program the No Motion time:

1. From the Programming menu, select System Options, No Motion [9410].
2. Enter the No Motion time value between 00:00 and 72:00. To disable the No Motion feature, enter 00:00. press '√'.

☞ Time counter is reset each time the system is disarmed.

## 9.10. Vocal Messages

The Vocal Messages option allows you to enable/disable vocal annunciation of system status. When this feature is enabled, the system plays a short message to announce events such as arming and disarming.

To program the Vocal Messages option:

1. From the Programming menu, select System Options, Vocal Message [9411].
2. Select Enabled or Disabled.

☞ The availability of the Vocal Message annunciation feature is hardware dependent.

## 9.11. Installer Access

The Installer Access option determines if the Installer code can access the system at all times or only after the Master code provides authorization with the Enable Programming command – see p 31, 4.7.12 Enable Programming.

To program the Installer Access option:

1. From the Programming menu, select System Options, Instal. Access [9412].
2. Select Always or User Initiated.

## 9.12. Daylight Savings

Using the Daylight Savings option, the system is able to automatically adjust its clock twice a year according to the national adjustment to Daylight Saving Time.

Two options are available:

- Europe – the clock is adjusted forward 1hr on the last Sunday in March at 1am, the clock is adjusted back 1hr on the last Sunday in October at 1am.
- USA– the clock is adjusted forward 1hr on the second Sunday in March at 2am, the clock is adjusted back 1hr on the first Sunday of November at 2am.

To program the Daylight Savings option:

1. From the Programming menu, select System Options, Daylight Savings [9413].
2. Select Europe, USA or Disabled.

## 9.13. Entry/Exit Trouble

If this function is enabled, the system can't be armed when the Exit Delay expires, if one of the following conditions is present:

- An entry/exit zone is open;
- Tamper Alarm from a zone during exit (if not restored before the exit delay expires);
- Zone Active when Exit Delay expires.

The event is then sent to the central station account.

To program the Entry/exit Trouble option:

1. From the Programming menu, select System Options, Entry Exit TR [9415].
2. Select Enabled or Disabled.

## 9.14. Report Fail Trouble

If the Report Fail Trouble option is enabled, failure to report an event displays System Trouble on the LCD display. Report Fail Trouble is displayed after the Control System has exhausted all message attempts and report cycles when trying to report the event. To restore a System Trouble condition caused by failure to report, press ▼ until you have scrolled through the entire system trouble list. If the Report Fail Trouble is disabled, failure to report an event does not cause a system trouble condition.

To program the Report Fail Trouble option:

1. From the Programming menu, select System Options, Rep. Fail Trb. [9416].
2. Select Enabled or Disabled.

## 9.15. Immediate Arming from WUApp

If immediate arming from WUApp is enabled, all WEB Arm commands received are executed immediately regardless of the programmed Exit Delay – see p. 48 8.1 Entry/Exit Delay. If disabled, the ARM commands will be executed with the programmed Exit Delay.

1. From the Programming menu, select System Options, WEB Immed. Arm [9417].
2. Select Enabled or Disabled.

# 10. Communications

This section explains how to determine the way the Control System communicates by GPRS, GSM, and PSTN to the Central Station and to the user.

## 10.1. System Reporting

The Control System supports six report accounts for central station and user reporting. Each account has its own telephone number and communications options.

The first account is always primary, every other account (that is not a voice report) may be chosen as primary or backup. Each primary account may have one, several, or no backup accounts at all. The order of calling is the following:

1. First, the Control System calls all the primary accounts, in ascending order. In case a primary account report fails, the Control System calls the backup accounts.
2. After that, the system calls the Voice Report accounts – see p. 62, 10.3 Vocal Message Dialer.

If account is set as Backup after Voice Report account, reports to this account will be discarded. It is Installer responsibility to program primary and backup accounts in proper order. To ensure proper functionality, Installer will not be able to set Account 1 as Voice Report or Backup.

### 10.1.1. Telephone Number

To edit an account's telephone number:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (1-6).
3. From the account's sub-menu, select Phone Number [#1].
4. Enter up to 16 digits. Use the  key to enter "*", "#", "," (pause), "T" (switch to DTMF tone dialing), "P" (switch to pulse dialing) or "+" (international code). Use the  key to delete one character at a time. Press '√'.

### 10.1.2. Protocol

To program an account's communication protocol:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (1-6).
3. From the account's sub-menu, select Protocol [#2].
4. Select a protocol from the options available.

**Set account 1 to IP protocol if you use GPRS communication.** Account number 3 is designed for use with the Follow me feature. It is the only telephone number that can be programmed by the user.

### 10.1.3. Communication Interface

For each account, you can choose whether the system employs PSTN, GSM, or GPRS communication, provided that it is available in your control system configuration.

To program an account's communication interface:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program account (1-6).
3. From the account's sub-menu, select Interface [#3].
4. Select PSTN, GSM, or GPRS (GPRS is used only for the first account).

### 10.1.4. Two-Way Audio

The Two-Way audio option determines whether Two-Way Audio is enabled for the account. For further information, see p. 35, 5.2.2 TWA Alarm Reporting.

To program the Two-Way Audio option for an account:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (1-6).
3. From the account's sub-menu, select Two-Way Audio [#4].
4. Select Enabled or Disabled.

### 10.1.5. Account Number (Not Relevant for Voice Report)

To edit an account number:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (1-6).
3. From the account's sub-menu, select Account Number [#5].
4. Enter up to eight digits. Enter leading zeros for account numbers of less than eight digits. Use the  key to enter hexadecimal digits. Press '√'.

**If the programmed protocol is Contact ID, "A" is not a valid entry in the account number.**

### 10.1.6. Call Attempts (Not Relevant for Voice Report)

The Call Attempts option determines the number of times the system tries to call a telephone number before moving on to the next number in sequence.

To program the number of call attempts for an account:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (1-6).
3. From the account's sub-menu, select Call Attempts [#6].
4. Enter a value between 01 and 15. Press '√'.

### 10.1.7. Account Type (Not Relevant for Voice Report)

To program the number of call attempts for an account:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (2-6).
3. From the account's sub-menu, select Account Type [#7].
4. Select Primary or Backup.

☞ Account 1 is a primary account.

## 10.2. Report Cycles

The system's attempts to report events are organized in cycles. A report cycle is a set of call attempts – see p. 61, 10.1.6 Call Attempts (Not Relevant for Voice Report). If the system does not succeed in sending a report to any of the telephone numbers, it tries to dial the entire report cycle again until it sends a successful report. You can determine the number of times the system attempts to dial this sequence by programming the Report Cycle option.

To program the number of Report Cycles:

1. From the Programming menu, select Communications, Accounts, Report Cycles [9517].
2. Enter a value between 01 and 15. Press '√'.

In the example illustrated in Figure 10-1, Account 1 is programmed with 2 call attempts, Account 2 is programmed with 3 call attempts and the number of report cycles programmed is 3.

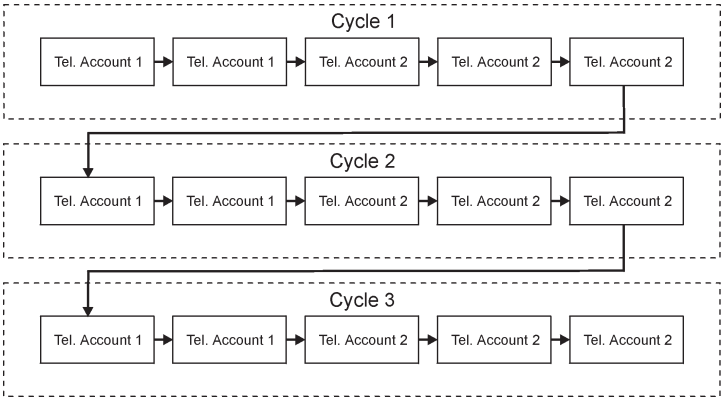



**Figure 10-1: Typical Report Cycle Sequence**

## 10.3. Vocal Message Dialer

The Vocal Message Dialer is a feature that calls the user's telephone number when specific events occur and plays pre-recorded messages. These calls are made after the system has reported the events to the central station. Additionally, in the event of an alarm, the user is able to establish a Two-Way Audio connection on receiving the vocal message in order to check the premises.

The system supports up to five Voice Report accounts. Each account has its own telephone number, communication interface and Two-Way Audio options.

The event types reported using the Vocal Message Dialer feature are determined in VM Event Options see p.74, 10.10 Vocal Message Dialer Event Options.

If one of these events occurs, the Control System dials the phone numbers of the Voice Report Account.

The sequence for a vocal message call is as follows:

1. An event occurs and the Control System calls the telephone number of the first Voice Report Account chosen.
2. When the user answers the call, the Home ID message and the relevant event message are played.
3. The user presses 1 on their telephone; if there are additional events to report the next message is played. Otherwise, "No Further Messages" is announced.

   -Or-

   If Two-Way Audio is enabled for the Voice Report account, the user may open the audio channel by pressing 2 on their telephone. If the user does not want to open the audio channel they may press "*" then "#" on their telephone to hang up.

If the call is not answered or the TC/VM Timeout (see p. 69, 10.6.10 Telecontrol/Vocal Message Timeout) expires before the message is acknowledged by the user pressing 1, the Control System calls the next Voice Report Account telephone number.

The availability of the Vocal Message Dialer feature is hardware dependent.

### 10.3.1. Telephone Number

To edit a Voice Report Account account's telephone number:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (2-6).
3. From the account's sub-menu, select Phone Number [#1].
4. Enter up to 16 digits. Use the * SOS key to enter "*", "#", "," (pause), "T" (switch to DTMF tone dialing), "P" (switch to pulse dialing) or "+" (international code). Use the # SOS key to delete one character at a time. Press '√' when you have finished editing.

### 10.3.2. Protocol

To program voice report protocol:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (2-6).
3. From the account's sub-menu, select Protocol [#2].
4. Select Voice Report.

### 10.3.3. Communication Interface

For each Vocal Message account, you can choose whether the system employs cellular or PSTN communication, provided that it is available in your control system configuration.

To program a Voice Report Account's communication interface:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (2-6).
3. From the account's sub-menu, select Interface [#3].
4. Select GSM or PSTN.

### 10.3.4. Two-Way Audio

The Two-Way audio option determines whether Two-Way Audio is enabled for the Voice Report Account. For further information, see p. 36, 5.2.3 Two-Way Audio after Vocal Messages.

To program the Two-Way Audio option for a Voice Report Account:

1. From the Programming menu, select Communications, Accounts [951].
2. Select the account you want to program (2-6).
3. From the account's sub-menu, select Two-Way Audio [#4].
4. Select Enabled or Disabled.

### 10.3.5. Home ID

The Home ID is a short message that is played at the beginning of a vocal message call in order to identify the system to the user. For example, at the beginning of the vocal message call, the message "Michael's House" will be played before the event messages.

To play back the Home ID message:

- From the Programming menu, select Communications, Accounts, Home ID, and Play Message [95181].

To record a Home ID message:

1. From the Programming menu, select Communications, Accounts, Home ID, and Record Message [95182].
2. Press '√' to start recording the message.
3. Record your message. The message may be up to ten seconds long.
4. Press '√' to stop recording; the message is automatically played back and **OK?** is displayed. Press '√' to save your recording.

## 10.4. Remote Programming

Electronics Line 3000's Remote Programmer (RP) and WEB Remote Programmer software enable you to operate and program the system from a PC either on-site or from a remote location. The software provides a comprehensive interface to the CommPact Control System designed to facilitate programming. There are 3 access levels available: Supervisor (full access), Technician (limited access to the program, a technician is not able to view or change user codes or the RP access code), and Operator (access to user operations, such as arming and disarming the system).

### 10.4.1. Remote Programmer

*PC to Control System Connection Methods*

You can connect to the Control System from a PC using one of three methods:

- Direct Call: The RP calls the site, the system picks up and RP communication is established.
- Callback: The RP calls the site, the system picks up then hangs up. The system then calls the Callback telephone number to establish a connection.
- Serial Connection: The RP connects directly via the Main Board's USB port.

The following programming options relate to the method in which the Remote Programmer software connects with the system.

### *Callback Telephone Number*

RP Callback is a security feature that helps ensure that remote programming is only performed by authorized personnel. When the Remote Programmer contacts the Control System, the Control System hangs up and calls the Callback telephone number.

To edit the Callback telephone number:

1. From the Programming menu, select Communications, Remote Prog., Call-Back # [9521].
2. Enter up to 16 digits. Use the * SOS key to enter "*", "#", "," (pause), "T" (switch to DTMF tone dialing), "P" (switch to pulse dialing) or "+" (international code). Use the # SOS key to delete one character at a time. Press '√' when you have finished editing.

☞ If there is no Callback telephone number programmed, RP Callback is disabled and the system connects to the Remote Programmer software using the "direct call" method.

### *RP Passcode*

The RP passcode is a six-digit code that grants access to remote programming. When establishing an RP connection, the passcode programmed in the RP customer file on the PC must be identical to the system's RP passcode.

To edit the RP passcode:

1. From the Programming menu, select Communications, Remote Prog., RP Passcode [9522].
2. Enter six digits, and then press '√'.

### *RP Communication Interface*

For remote programming, the CommPact Control System can employ GPRS, GSM, or PSTN communication, provided that it is available in your control system configuration.

To program the RP communication interface:

1. From the Programming menu, select Communications, Remote Prog., RP Interface [9523].
2. Select PSTN or GSM (GPRS is relevant for the WEB RP only).

### *RP Access Options*

Options are available to enable, disable or limit access to remote programming.

To program RP Access Options:

1. From the Programming menu, select Communications, Remote Prog., RP Access [9524].
2. Select an RP access option from the following table.

**Table 10-1: RP Access Options**

| Access option | Description |
|---|---|
| Always Enable | Up/downloading is always possible. |
| During Disarm | The system must be disarmed in order to establish a connection. |
| Disable | Up/downloading is disabled. |

| | |
|---|---|
| User Initiated | The user must perform Enable Programming from the Service menu in order to establish a connection – see p.31, 4.7.12 Enable Programming. |

### 10.4.2. WEB Remote Programmer (Relevant only when using ELAS connection)

Electronics Line 3000's WEB-based Remote Programmer (WEB RP) allows the installer or service provider to operate and program the system via the WEB using ELAS database to get the list of supported Control Systems. To access WEB RP, the installer must enter user name and password.

## 10.5. Service Call

The Service Call feature is designed to enable the user to call the monitoring service at the push of a button. When the user presses the up arrow key button ▲ and then presses and holds down the Service Call button  for a few seconds, a two-way audio connection with the central station is established.

### 10.5.1. Service Call Telephone Number

To edit the Service Call telephone number:

1. From the Programming menu, select Communications, Service Call, Phone Number [9531].
2. Enter up to 16 digits. Use the  key to enter "*", "#", "," (pause), "T" (switch to DTMF tone dialing), "P" (switch to pulse dialing) or "+" (international code). Use the  key to delete one character at a time. Press '√' when you have finished editing.

### 10.5.2. Service Call Interface

For the Service Call feature, you can choose whether the system employs cellular or PSTN communication, provided that it is available in your control system configuration.

To program the Service Call interface:

1. From the Programming menu, select Communications, Service Call, Interface [9532].
2. Select either GSM or PSTN.

## 10.6. Communications Options

### 10.6.1. Line Monitor

The Line Monitor feature monitors the PSTN telephone line. If a problem is detected with the line, a Media Loss event is registered in the log.

To program the Line Monitor setting:

1. From the Programming menu, select Communications, Comm. Options, and Line Monitor [95401].
2. Select Enabled or Disabled.

### 10.6.2. Periodic Test Interval

The Periodic Test is a test transmission the system sends to notify the central station that its reporting capability is fully functional.

Two options are available for the Periodic Test:

- You can program the system to send a Periodic Test message according to a chosen time interval. This time interval can be between 1 and 254 hours (approximately 10 days).
- The system calculates automatically the time the Periodic Test is sent according to the last four digits of the account number. Automatically calculated tests can be sent daily, weekly or monthly according to the Auto Interval option – see p. 67, 10.6.4 Auto Interval. This feature is designed to avoid overflow of test reports to the central station at any given time.

☞ The Periodic Test event message is an unclassified event. This means that it does not belong to any event group. If the Periodic Test Interval is programmed with any value other than 000, the event message will be sent.

To program the Periodic Test Interval:

1. From the Programming menu, select Communications, Comm. Options, and Test Interval [95402].
2. Enter the test interval (001-254 hours) or 255 for an automatically calculated test interval, then press '√'.

To disable the Periodic Test:

- Program the Periodic Test Interval as 000.

### 10.6.3. First Test

If the Periodic Test Interval is programmed as 001-254 hours, you must also program the time that the first Periodic Test is sent.

To program the First Test Time:

1. From the Programming menu, select Communications, Comm. Options, and First Test [95403].
2. Enter a time (HH:MM), then press '√'.

### 10.6.4. Auto Interval

The Auto Interval option determines the frequency of automatically calculated periodic test messages.

To program the Auto Interval:

1. From the Programming menu, select Communications, Comm. Options, and Auto Interval [95404].
2. Select Daily, Weekly or Monthly.

### 10.6.5. Call Timeout

The Call Timeout is the amount of time the system waits for the first acknowledgement (ACK1) from the central station when reporting using the PSTN. If ACK1 is not received during this time, the system regards the call as a failed dialing attempt.

To program the Call Timeout:

1. From the Programming menu, select Communications, Comm. Options, and Call Timeout [95405].
2. Enter a time (001-255 seconds), and then press '√'.

### 10.6.6. ACK. Timeout

The ACK Timeout is the amount of time the system waits for the second acknowledgement (ACK2) from the central station when reporting using the PSTN. If ACK2 is not received during this time, the system regards the call as a failed dialing attempt.

To program the ACK Timeout:

1. From the Programming menu, select Communications, Comm. Options, and ACK Timeout [95406].
2. Enter a time (001-255 seconds), and then press '√'.

### 10.6.7. PSTN Country

In order to meet the requirements of local telecommunications authorities, default telephone line parameters have been chosen for a number of different countries.

To program the PSTN Country:

1. From the Programming menu, select Communications, Comm. Options, and PSTN Country [95407].
2. Select your country from the options available.

Electronics Line 3000 offers custom telephone line parameter settings for countries that do not appear in the list of pre-defined options. If your country does not appear among the available options, select the option Custom Settings.

### 10.6.8. Dial Tone Wait

This option determines whether the system dials only when the dial tone is present or if the dialing is initiated regardless of the dial tone.

To program the Dial Tone Wait option:

1. From the Programming menu, select Communications, Comm. Options, and Dial Tone Wait [95408].
2. Select Enabled or Disabled.

### 10.6.9. Incoming Calls

This option determines whether the Control System is able to receive incoming Telecontrol/Two-Way Audio calls.

To program the Incoming Calls option:

1. From the Programming menu, select Communications, Comm. Options, and Incoming Call [95410].
2. Select Enabled or Disabled.

### 10.6.10. Telecontrol/Vocal Message Timeout

The Telecontrol/Vocal Message Timeout (TC/VM Timeout) determines the duration of a Telecontrol, Two-Way Audio or Vocal Message call. In the case of a Telecontrol or Two-Way Audio call, when the time out expires, the system automatically disconnects unless the call is manually extended by the operator. For Vocal Message calls, if the time out expires and the user has not acknowledged the message, the system attempts to call the next Voice Report account's telephone number. During a Vocal Message call, the timeout is reset each time a message is acknowledged.

To program the Telecontrol/Vocal Message Timeout:

1. From the Programming menu, select Communications, Comm. Options, and TC/VM Timeout [95411].
2. Enter a time (001-255 seconds), and then press '√'.

### 10.6.11. TWA Mode

The Two-Way audio features offer a choice of two operation modes:

- Duplex – both parties may speak at once just like a regular telephone.
- Simplex – one party may speak while the other party listens.

To program the TWA mode option:

1. From the Programming menu, select Communications, Comm. Options, and TWA Mode [95412].
2. Select Duplex or Simplex.

## 10.7. GSM Options

### 10.7.1. GSM RX Report

The GSM RX Report is a feature that periodically reads the GSM signal strength of the Cellular Communication – see p.30, 4.7.9 GSM Signal Strength. This reading occurs at the times programmed for the Periodic Test – see p. 67, 10.6.2 Periodic Test Interval, and p. 67, 10.6.3 First Test. This means that each time the periodic test is sent, the system also sends a GSM signal strength report to the central station. The system also enters the GSM signal strength in the event log.

If the Periodic Test is disabled, the GSM RX Report feature will not function. The GSM RX report belongs to the Peripherals event group – see p. 73, 10.9 Event Options for Central Station Reporting. If this event group is disabled, the GSM signal strength is still recorded in the event log.

To program the GSM RX Report option:

1. From the Programming menu, select Communications, Comm. Options, GSM Options, and GSM RX Report [954131].
2. Select Enabled or Disabled.

### 10.7.2. PIN Code

The PIN (Personal Identity Number) is a four-digit code that protects the SIM card from unauthorized use if lost or stolen.

When using a SIM card with an activated PIN code, the installer has to make sure that the PIN code programmed in the Control System is the same as the SIM card's PIN code. The PIN code should be programmed in the system before inserting the SIM card.

To program the PIN code:

1. From the Programming menu, select Communications, Comm. Options, GSM Options, and PIN Code [954132].
2. Edit the four-digit PIN code, and then press '√'.
3. Power up the Control System to apply the new PIN Code definition.

☞ The new PIN code takes effect only after the System is powered.

If a wrong PIN code was programmed in the system, a System Trouble is generated, the **PIN Code Error** message is displayed, and GSM communication of any kind is not available. In this case, the SIM card must be reactivated.

To reactivate a SIM card:

1. Program the correct PIN code in the Control System (see above), then disconnect the Control System from all the power sources.
2. Remove the SIM card from the SIM card Holder on the Main Board (see p. 5, Figure 1-2) and insert it into a cellular phone.
3. Turn on the cellular phone and enter the correct PIN code.
4. Re-install the SIM card into the Control System and apply power.

### 10.7.3. SMS Center

To edit the SMS Center telephone number:

1. From the Programming menu, select Communications, Comm. Options, GSM Options, and SMS Center [954133].
2. Enter up to 16 digits. Use the * SOS key to enter "*", "#", "," (pause), "T" (switch to DTMF tone dialing), "P" (switch to pulse dialing) or "+" (international code). Use the # SOS key to delete one character at a time. Press '√' when finished.

### 10.7.4. SMS Command

The SMS Command option enables you to enable or disable the ability to send commands to the system via SMS. For further information on SMS commands, see p. 20, 3.7.3 Remote Arming/Disarming via SMS and p. 37, 6.2 Telephone Control.

To enable/disable SMS commands:

1. From the Programming menu, select Communications, Comm. Options, GSM Options, and SMS Command [954134].
2. Select Enabled or Disabled.

### 10.7.5. SMS Confirmation

After an SMS command is executed by the system, a confirmation message is returned to the sender's mobile phone. You can enable or disable this feature using this option.

To enable/disable SMS confirmation:

1. From the Programming menu, select Communications, Comm. Options, GSM Options, and SMS Confirm [954135].
2. Select Enabled or Disabled.

### 10.7.6. GSM Media Loss Time

The GSM Media Loss Time is a feature that is designed to control the amount of GSM media loss events registered in the log and sent to the central station.

If, for a period defined in GSM ML Time parameter, the GSM signal has always been below the lower threshold, a Media Loss event is registered in the log and sent to the central station.

The GSM Media Loss event is sent to the central station via PSTN only.

If, for a period defined in GSM ML Time parameter, since GSM media restore is detected, the GSM signal has always been above the upper threshold, GSM Media Restore is registered in the log and sent to central station.

To disable the GSM Media Loss feature (cancel the GSM Media Loss events) enter 000.

To program the GSM Media Loss Time:

1. From the Programming menu, select Communications, Comm. Options, GSM Options, and GSM ML Time. [954136].
2. Enter time (003-255 minutes or 000 to disable), then press '√'.

## 10.8. TWA Event Report Options

### 10.8.1. TWA Event Report

The TWA Event Report is an event report that is sent to the central station to indicate that Two-Way Audio communication is about to commence. If enabled, the system sends the Contact ID event code 606000 before establishing Two-Way Audio communication.

This option affects Contact ID only. If using SIA, a TWA event report is always sent together with the TC/VM timeout, regardless of the configuration for this option.

To program the TWA Event option:

1. From the Programming menu, select Communications, Comm. Options, and TWA Event Rept. [95414].
2. Select Enabled or Disabled.

### 10.8.2. TWA Time Report

If the TWA Time Report option is enabled, the last three digits of the TWA Event Report are replaced with the amount of seconds programmed for the TC/VM Timeout – p. 69, 10.6.10 Telecontrol/Vocal Message Timeout. For example, if the TC/VM Timeout is programmed as 120 seconds, the Contact ID event code to be sent for the TWA Event Report will be 606120.

To program the TWA Time Report option:

1. From the Programming menu, select Communications, Comm. Options, and TWA Time Rept. [95415].
2. Select Enabled or Disabled.

### 10.8.3. Caller ID Mode and Incoming Number

Incoming number feature allows the installer to program up to three high-priority telephone numbers so that the user would be able to use Telecontrol/2-way audio over GSM during a GPRS session. If the Control System recognizes the incoming call as a high-priority call, the GPRS session will be suspended. Caller ID Mode option allows selection of the ID Mode applicable to your specific network.

Caller ID Mode option affects PSTN too. There is no Caller ID Fail trouble for the incoming calls over GSM.

To choose the applicable Caller ID Mode option:

1. From the Programming menu, select Communications, Comm. Options, and Caller ID Mode. [95416].
2. Choose the mode applicable to your PSTN network (Bellcore, British Telecom, and Japan). You can also disable Caller ID by choosing Caller ID Disable.

To program/edit the Incoming Number:

1. From the Programming menu, select Communications, Comm. Options, and Incoming #. [95417].
2. Select the telephone number you want to edit (1-3).
3. Enter up to 16 digits. Use the  key to enter "*", "#", "," (pause), "T" (switch to DTMF tone dialing), "P" (switch to pulse dialing) or "+" (international code). Use the  key to delete one character at a time. Press '√' when you have finished editing.

### 10.8.4. Remote Firmware Update

Electronics Line 3000's Remote Firmware Update feature allows the Installer or service provider to perform firmware update from a remote PC using WEB communication.

Before performing the firmware update, locally disarm the system and make sure that there is no AC LOSS or BATTERY LOW conditions.

To setup the firmware update mode:

1. From the Programming menu, select Communications, Comm. Options, and Rem. SW Update [95418].
2. Select the Remote Firmware Update mode from the following table:

**Table 10-2: Remote FW Update**

| Access option | Description |
|---|---|
| Always Enable | Update is always possible. |
| Disable | Firmware update is not allowed. |
| User Initiated | The user must perform SW Update from the Service menu in order to establish a connection – see p. 32, 4.7.14 Remote Firmware Update. |

## 10.9. Event Options for Central Station Reporting

System events are divided into a number of different event groups. This division allows you to enable or disable reporting or Two-Way Audio for a specific group of events.

The different event groups are as follows:

- Burglary [#1]
- Fire [#2]
- Open/Close (arm/disarm) [#3]
- Service [#4]
- Power [#5]
- Peripherals [#6]
- RF Jamming [#7]
- Medical [#8]

### 10.9.1. Event Reporting

You can enable or disable event reporting per Event Group. This allows you to filter the type of events that are reported to the central station.

To enable/disable reporting for an event group:

1. From the Programming menu, select Communications, Event Options [955].
2. Select an Event Group.
3. From the event group's sub-menu, select Report [#1].
4. Select Enabled or Disabled.

### 10.9.2. Restore Reporting

For each event group, you can determine whether restore messages will be sent.

☞ There is no Restore for No Motion event.

To enable/disable restore reporting for an event group.

1. From the Programming menu, select Communications, Event Options [955].
2. Select an event group.
3. From the event group's sub-menu, select Report Restore [#2].
4. Select Enabled or Disabled.

### 10.9.3. Two-Way Audio

For Burglary, Fire and Medical event groups, there is an additional option that enables Two-Way Audio for that event group – see p. 35, 5.2.2 TWA Alarm Reporting.

To enable/disable Two-Way Audio for an event group:

1. From the Programming menu, select Communications, Event Options [955].
2. Select an Event Group (Burglary, Fire or Medical).
3. Select TWA [#3].
4. Select Enabled or Disabled.

## 10.10. Vocal Message Dialer Event Options

Events reported using the Vocal Message Dialer is divided into event groups that correspond with the pre-recorded event messages. This allows you to enable or disable the Vocal Message feature for a specific group of events. For further information on this feature, see p. 62, 10.3 Vocal Message Dialer.

The vocal message event groups and their associated system events are as follows:

- Burglary [#1]
  - Alarm from Zone (excluding Gas and Environmental zones)
  - Zone Tamper
  - Tamper
  - Duress
- Fire [#2]
  - Zone Fire Alarm
  - User Activated Fire Alarm
- Panic [#3]
  - Zone Panic Alarm
  - User Activated Panic Alarm
- Medical [#4]
  - Zone Medical Alarm
  - Zone Medical Alarm
  - User Activated Alarm
  - No Motion
- System Trouble [#5]
  - Battery Low
  - Transmitter Low Battery
  - AC Loss
  - Media Loss
  - Device Trouble
  - Communication Trouble
  - Transmitter Out of Synch.
  - Control System Transmitter Out of Synch.
  - Supervision Loss

- Zone Trouble
- FM Jamming

- Arm [#6]
  - Full Arm
  - Part Arm
  - Perimeter Arm
- Disarm [#7]
  - Disarm
  - Disarm after Alarm
- Water [#8]
  - Zone Water Alarm (Flood)

To enable/disable the vocal message for an event group:

1. From the Programming menu, select Communications, VM Event Opt. [956].
2. Select an event group.
3. Select Enabled or Disabled.

# 11. Internet Options

The following options concern the configuration of the GPRS. In most cases, the Internet options will be pre-programmed as defaults and you will not be required to change any of the settings apart from the CPID and password for each customer.

## 11.1. ELAS Connection Parameters

The following parameters, required to connect Control System to ELAS, are set by ELAS administrator.

### 11.1.1. XML Proxy IP

To edit the XML Proxy IP:

1. From the Programming menu, select Communications, Internet, XML Proxy IP [9571].
2. Enter the XML Proxy IP provided by your ELAS administrator. Use the "1" key to enter ".", * key to insert and the # key to delete one character at a time. Press '√' when finished.

### 11.1.2. XML Proxy Port

To edit the XML Proxy Port:

1. From the Programming menu, select Communications, Internet, XML Proxy Port [9572].
2. Enter the XML Proxy Port provided by your ELAS administrator. Use the "1" key to enter ".", * key to insert and the # key to delete one character at a time. Press '√' when finished.

## 11.2. Control System Parameters

The following parameters, required to connect Control System to ELAS, should be provided by your ELAS administrator.

### 11.2.1. CP ID

To edit the Control System ID:

1. From the Programming menu, select Communications, Internet, CP ID [9573].
2. Enter the unique Control System ID provided by your ELAS administrator to connect the Control System to ELAS. Use the "1" key to enter ".", * key to insert and the # key to delete one character at a time. The ID length must be six up to sixteen characters. Press '√' when finished.

### 11.2.2. CP Password

To edit the Control System Password:

1. From the Programming menu, select Communications, Internet, CP Password [9574].
2. Enter the Control System Password provided by your ELAS administrator to connect the Control System to ELAS. Use the "1" key to enter ".", * key to insert and the # key to delete one character at a time. The password length must be six up to sixteen characters. Press '√' when finished.

### 11.2.3. ELAS Connection on/off

To enable/disable ELAS connection option:

1. From the Programming menu, select Communications, Internet, ELAS Connect [9575].
2. Select Enabled or Disabled.

## 11.3. GPRS Network Parameters

The following parameters, required to program your GPRS connection, should be provided by the cellular provider.

### 11.3.1. APN

To edit the APN name of your GPRS connection:

1. From the Programming menu, select Communications, Internet, GPRS Options, and APN [95761].
2. Enter the APN name provided by the cellular provider. Use the "1" key to enter ".", * key to insert and the # key to delete one character at a time.

### 11.3.2. User Name

To edit the User name of your GPRS connection (optional setting provided by the cellular provider):

1. From the Programming menu, select Communications, Internet, GPRS Options, and User Name [95762].
2. Enter the User Name provided by the cellular provider. Use the "1" key to enter ".", * key to insert and the # key to delete one character at a time.
3. Press '√' when you have finished editing.

### 11.3.3. Password

To edit the Password of your GPRS connection (optional setting provided by the cellular provider):

1. From the Programming menu, select Communications, Internet, GPRS Options, and Password [95763].
2. Enter the Password provided by the cellular provider. Use the "1" key to enter ".", * key to insert and the # key to delete one character at a time.

### 11.3.4. GPRS Write TMO

To edit the GPRS Write TMO of your GPRS connection:

- From the Programming menu, select Communications, Internet, GPRS Options, and GPRS Write TMO [95764].

# 12. System Initialization

The Initialization menu offers a number of options that enable you to reset the system. This menu is particularly useful when re-installing a Control System at a new site. The Initialization function clears the entire system. This restores programming defaults, clears the log, user codes and the transmitter register. Options are also available that enable you to clear a specific section of the system's memory separately.

## 12.1. Initialization

The Initialization function clears the entire system and resets factory defaults.

To initialize the Control System:

- From the Programming menu, select Initialize, Init All [971]; the system prompts you for confirmation.

  Factory programming defaults are restored, the event log is cleared, ser codes and wireless transmitters are deleted.

☞ During system initialization, recorded vocal messages (Message Center and Home ID) are not deleted.

## 12.2. Default Program Restore

Loading the system's default program enables you to restore the factory-set programming defaults.

To load the default program:

- From the Programming menu, select Initialize, Load Defaults [972]; the system prompts you for confirmation.

## 12.3. Clear User Codes

Clear User Codes deletes all programmed user codes and restores the default Master and Installer codes.

To clear user codes:

- From the Programming menu, select Initialize, Clear Users [973]; the system prompts you for confirmation.

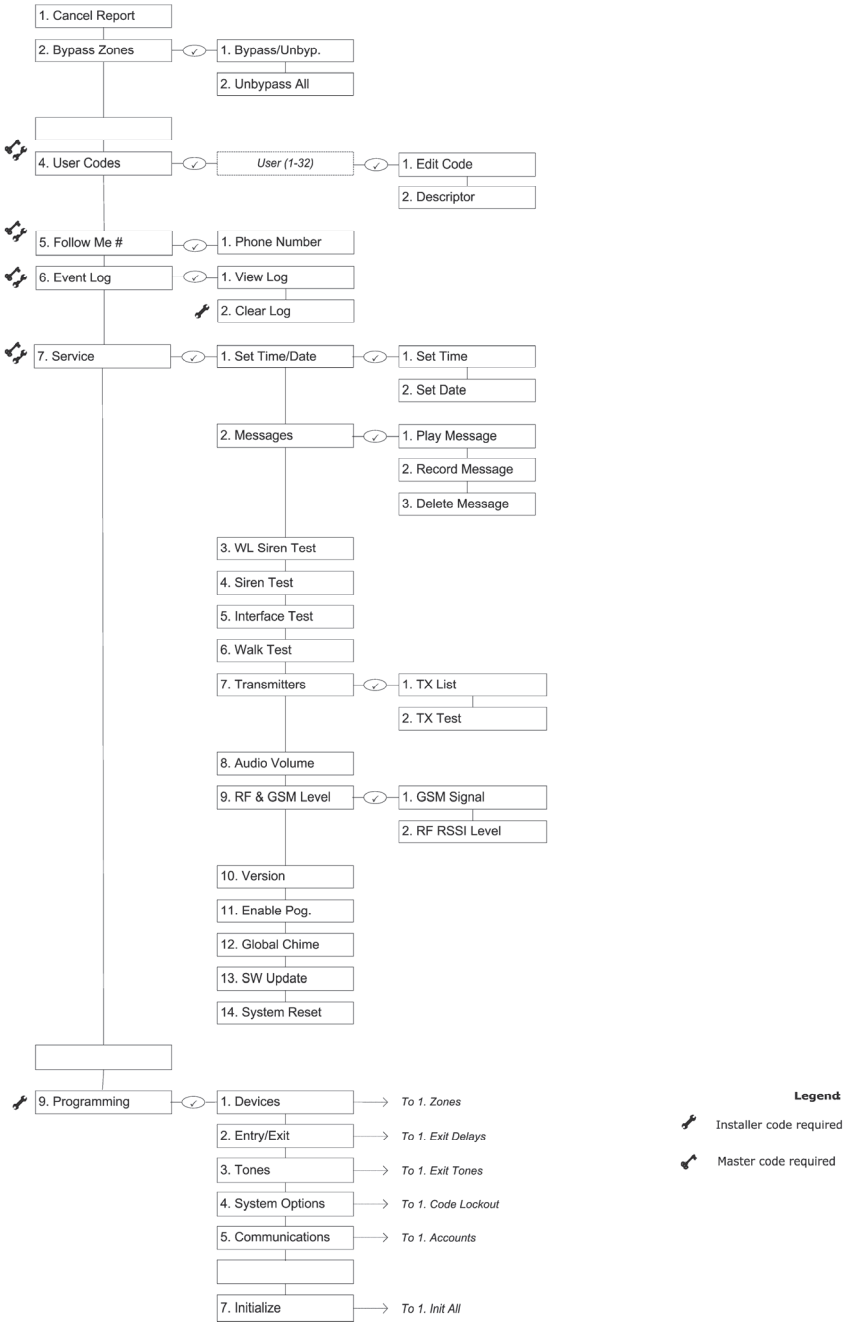
## 12.4. Clear Wireless Transmitters

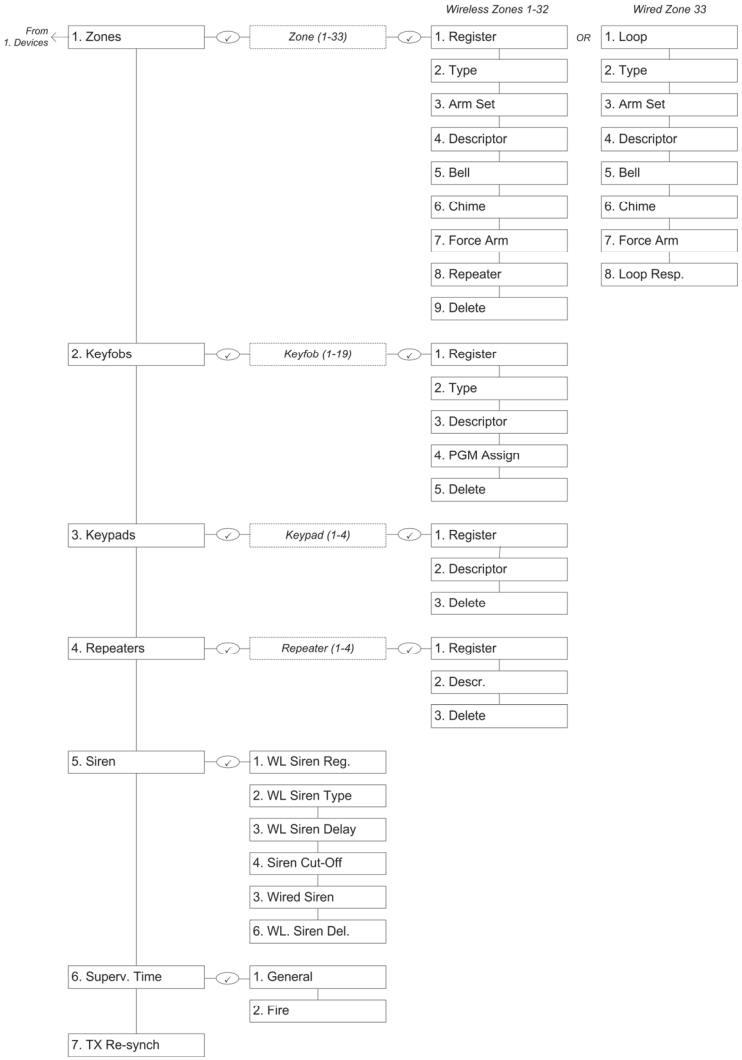
The Clear Wireless Transmitters function enables you to delete all registered transmitters at once.

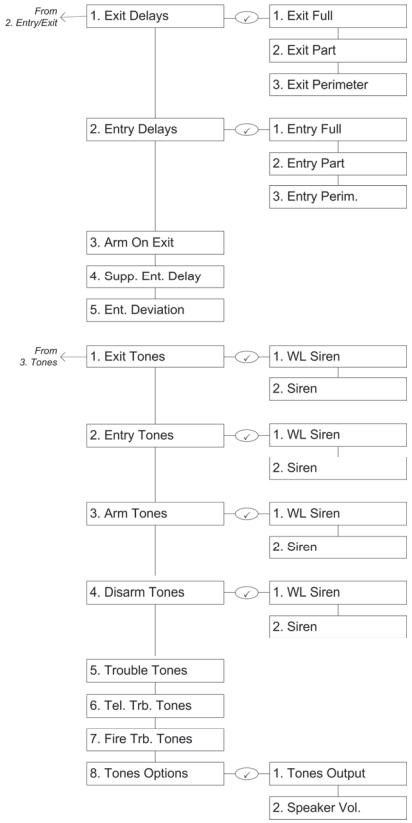
To clear the transmitter register:

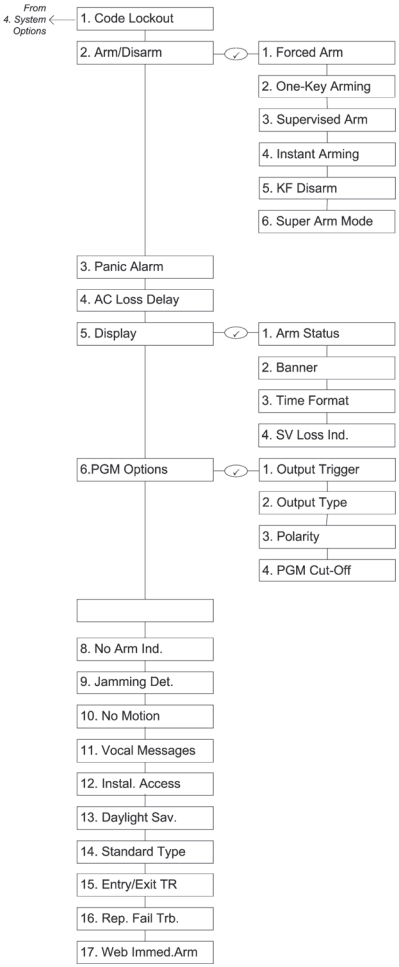
- From the Programming menu, select Initialize, Clear Wireless [974]; the system prompts you for confirmation.

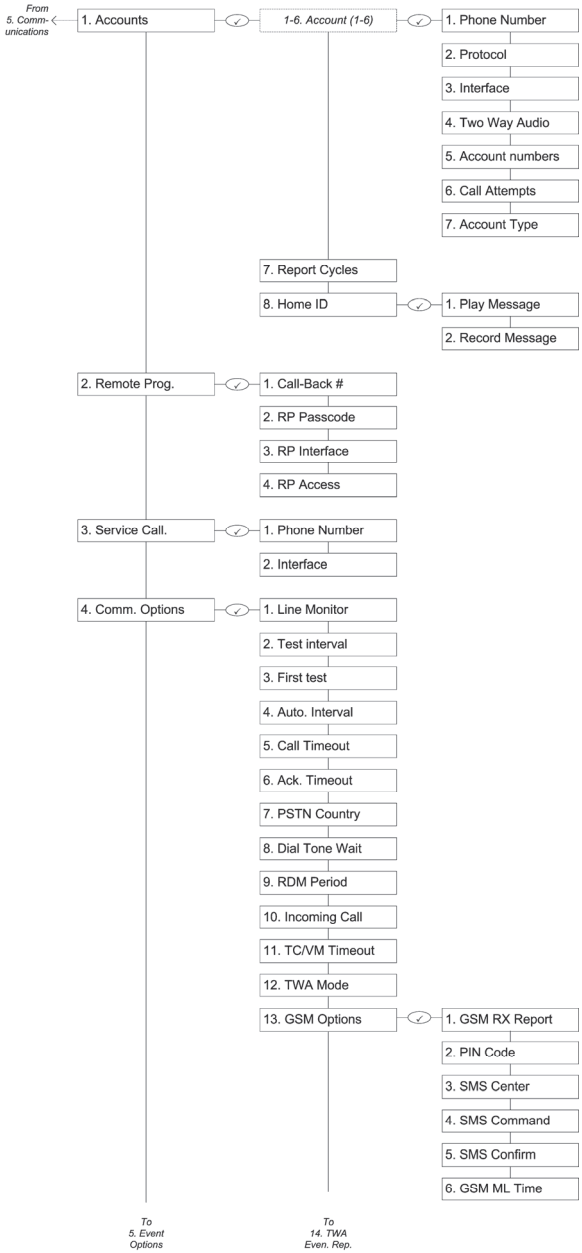
# Appendix A: Menu Structure

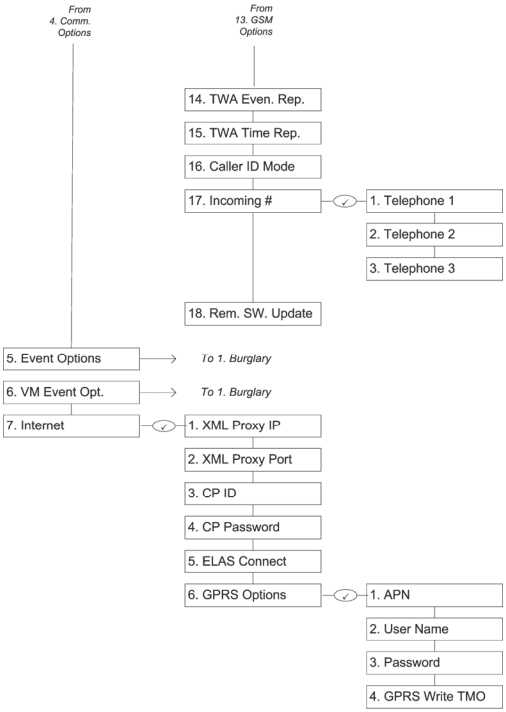


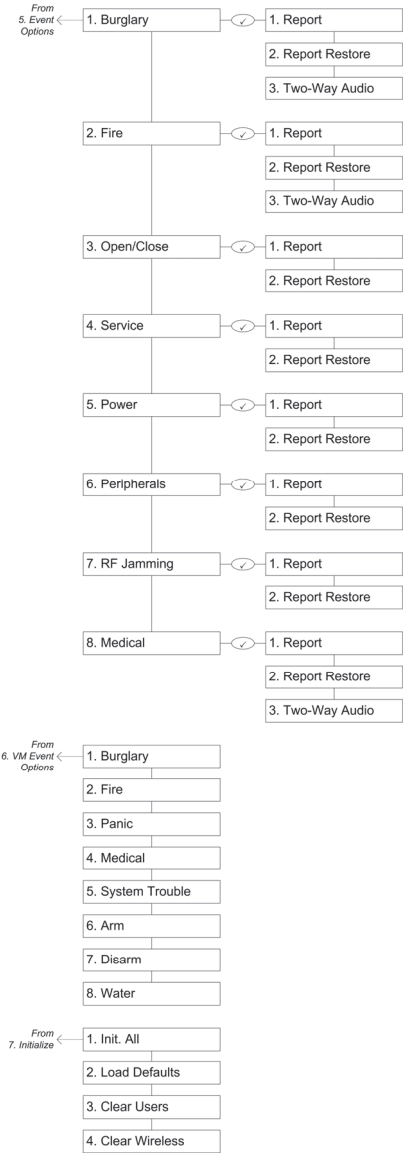

Wireless Zones 1-32
Wired Zone 33
From 1. Devices
1. Zones
Zone (1-33)
1. Register
OR
1. Loop
2. Type
2. Type
3. Arm Set
3. Arm Set
4. Descriptor
4. Descriptor
5. Bell
5. Bell
6. Chime
6. Chime
7. Force Arm
7. Force Arm
8. Repeater
8. Loop Resp.
9. Delete
2. Keyfobs
Keyfob (1-19)
1. Register
2. Type
3. Descriptor
4. PGM Assign
5. Delete
3. Keypads
Keypad (1-4)
1. Register
2. Descriptor
3. Delete
4. Repeaters
Repeater (1-4)
1. Register
2. Descr.
3. Delete
5. Siren
1. WL Siren Reg.
2. WL Siren Type
3. WL Siren Delay
4. Siren Cut-Off
3. Wired Siren
6. WL. Siren Del.
6. Superv. Time
1. General
2. Fire
7. TX Re-synch


From 2. Entry/Exit
1. Exit Delays
1. Exit Full
2. Exit Part
3. Exit Perimeter
2. Entry Delays
1. Entry Full
2. Entry Part
3. Entry Perim.
3. Arm On Exit
4. Supp. Ent. Delay
5. Ent. Deviation
From 3. Tones
1. Exit Tones
1. WL Siren
2. Siren
2. Entry Tones
1. WL Siren
2. Siren
3. Arm Tones
1. WL Siren
2. Siren
4. Disarm Tones
1. WL Siren
2. Siren
5. Trouble Tones
6. Tel. Trb. Tones
7. Fire Trb. Tones
8. Tones Options
1. Tones Output
2. Speaker Vol.


From 4. System Options
1. Code Lockout
2. Arm/Disarm
1. Forced Arm
2. One-Key Arming
3. Supervised Arm
4. Instant Arming
5. KF Disarm
6. Super Arm Mode
3. Panic Alarm
4. AC Loss Delay
5. Display
1. Arm Status
2. Banner
3. Time Format
4. SV Loss Ind.
6.PGM Options
1. Output Trigger
2. Output Type
3. Polarity
4. PGM Cut-Off
8. No Arm Ind.
9. Jamming Det.
10. No Motion
11. Vocal Messages
12. Instal. Access
13. Daylight Sav.
14. Standard Type
15. Entry/Exit TR
16. Rep. Fail Trb.
17. Web Immed.Arm


From 5. Comm-unications
1. Accounts
1-6. Account (1-6)
1. Phone Number
2. Protocol
3. Interface
4. Two Way Audio
5. Account numbers
6. Call Attempts
7. Account Type
7. Report Cycles
8. Home ID
1. Play Message
2. Record Message
2. Remote Prog.
1. Call-Back #
2. RP Passcode
3. RP Interface
4. RP Access
3. Service Call.
1. Phone Number
2. Interface
4. Comm. Options
1. Line Monitor
2. Test interval
3. First test
4. Auto. Interval
5. Call Timeout
6. Ack. Timeout
7. PSTN Country
8. Dial Tone Wait
9. RDM Period
10. Incoming Call
11. TC/VM Timeout
12. TWA Mode
13. GSM Options
1. GSM RX Report
2. PIN Code
3. SMS Center
4. SMS Command
5. SMS Confirm
6. GSM ML Time
To 5. Event Options
To 14. TWA Even. Rep.


From 4. Comm. Options
From 13. GSM Options
14. TWA Even. Rep.
15. TWA Time Rep.
16. Caller ID Mode
17. Incoming #
1. Telephone 1
2. Telephone 2
3. Telephone 3
18. Rem. SW. Update
5. Event Options
To 1. Burglary
6. VM Event Opt.
To 1. Burglary
7. Internet
1. XML Proxy IP
2. XML Proxy Port
3. CP ID
4. CP Password
5. ELAS Connect
6. GPRS Options
1. APN
2. User Name
3. Password
4. GPRS Write TMO

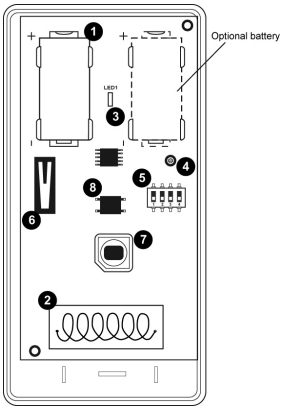

From 5. Event Options
1. Burglary
1. Report
2. Report Restore
3. Two-Way Audio
2. Fire
1. Report
2. Report Restore
3. Two-Way Audio
3. Open/Close
1. Report
2. Report Restore
4. Service
1. Report
2. Report Restore
5. Power
1. Report
2. Report Restore
6. Peripherals
1. Report
2. Report Restore
7. RF Jamming
1. Report
2. Report Restore
8. Medical
1. Report
2. Report Restore
3. Two-Way Audio
From 6. VM Event Options
1. Burglary
2. Fire
3. Panic
4. Medical
5. System Trouble
6. Arm
7. Disarm
8. Water
From 7. Initialize
1. Init. All
2. Load Defaults
3. Clear Users
4. Clear Wireless

# Appendix B: Transmitter Installation

## PIR Detectors (EL-2645/EL-2645PI)

The EL-2645 and EL-2645PI are Wireless Motion PIR Detector designed for use with Electronics Line supervised wireless range of receivers. All these detectors implement a feature to combat the problem of multiple transmissions, which drastically reduce the life of the batteries. After each transmission, there is a four-minute delay during which further transmissions will not be sent. When batteries need replacing, the detector sends a low battery indication to the Control System. The EL-2645PI is designed for pet installations and provides good immunity to nuisance alarms caused by pets and animals.

Detectors that meet the EN-50131 standard, have a three-minute delay between transmissions.




1. Battery Holder
2. Antenna
3. LED Indicator
4. PCB Screw
5. DIP Switch
6. Tamper Switch
7. Pyro Sensor
8. Back Tamper

**Figure B- 1: PIR Detector with Cover Removed – EL-2645/EL-2645PI**

### Considerations before Installation

- Select a location from which the pattern of the detector is most likely to be crossed by a burglar, should there be a break in.
- Do not place bulky objects in front of the detector.
- Avoid a location that comes in direct contact with radiators, heating/cooling ducts or air conditioners.
- Do not place the detector in front of windows subject to direct sunlight or drafts.

### Pet Immunity Guidelines (EL-2645PI)

It is expected that the EL-2645PI will eliminate false alarms caused by:

- Animals up to 36kg/80lbs
- Several small rodents
- Random flying birds.

The weight of the animal should only be used as a guide; other factors such as the length and color of fur also affect the level of immunity.

For maximum pet immunity the following guidelines are recommended:

- Mount the center of the detector at a height of 2.0m.
- Do not aim the detector at stairways that can be climbed by an animal.
- Avoid a location where an animal can come within 1.8m (6') of the detector by climbing on furniture, boxes or other objects.

### Installation Procedure

To install PIR detectors:

1. Open the housing by removing the front cover. To do so, insert a screwdriver in the release slot (located at the bottom of the detector between the front and back cover). Turn the screwdriver 90º to release the cover.
2. Remove the PCB by turning counter-clockwise and removing the 'PCB Screw'.

☞ Do not touch the face of the PYRO sensor.

3. Apply battery power by removing the isolator that separates the battery from the contacts on the battery holder.
4. From the Programming menu, select Devices, Zones [911] and select the zone to which you want to register the transmitter.
5. Cause a Tamper or Alarm transmission and wait for the receiver to indicate that the transmitter has been registered successfully. When Save? appears on the Control System's LCD display, press '√'. Write the number of the zone and the transmitter number (if applicable) on the sticker provided. Affix the sticker inside the front cover for future reference.

☞ Alternatively, the Detector can be registered to the receiver by manually entering the transmitter's serial number.

6. Choose an appropriate mounting height from 2.2 – 2.5 and test the transmitter from the exact mounting position before permanently mounting the unit.

☞ ♦ If you choose mounting height other than recommended (which is not advised), please perform a walk test to check the lens coverage. The recommended mounting height is the best in terms of detection area.

7. Knock out the mounting holes and attach the base to the wall.
8. If using the rear tamper switch, insert a screw into the rear tamper mounting hole located in the center of the back cover. When the detector is removed from the wall, the screw causes the tamper release to break away from the back cover and the rear tamper switch is released.


**Figure B- 2: Back Tamper Release**

9. Mount the PCB on the base cover and replace the PCB Screw.
10. Replace the front cover.

### DIP Switch Settings

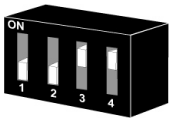



**Figure B- 3: DIP Switch**

**Table B- 1: DIP Switch Settings (EL-2645/EL-2645PI)**

| Switch | Operation |
|---|---|
| 1 | **PIR sensitivity**<br>***Off**: Low<br>**On**: High |
| 2 | **Operation mode**:<br>***Off**: Normal mode – Every 3 minutes. After each detection the sensor initiates a three-minute delay during which alarm transmissions will not be sent<br>**On**: Walk Test mode. An alarm transmission is sent after each detection |
| 3 | **Supervision Time**:<br>**Off**: As supervision message will be sent to the monitoring station every 15 minutes<br>***On**: As supervision message will be sent to the monitoring station every 65 minutes |
| 4 | **LED**<br>**Off**: LED disabled<br>***On**: LED enabled |

*=Default

### Warm-Up Time

The detector will need to warm up for the first 90 seconds after applying power.

### Walk Test Mode

A walk test is performed in order to determine the lens coverage pattern of the detector – see Figure B- 4. Walk Test mode cancels the delay time between detections, enabling you to perform an efficient walk test.

To perform a Walk Test:

1. Set DIP 2 to ON.
2. Walk across the scope of the detector according to the detection pattern selected.
3. Confirm that the LED activates and deactivates accordingly. Wait for ten seconds after each detection before continuing the test.
4. After completing the walk test. Set DIP-2 to OFF.

### LED Indication

The LED indicator is lit every time a transmission is made. To enable/disable LED indication, refer to DIP Switch Setting section for the appropriate DIP-switch setting

LED should only be disabled after successfully walk testing the detector.

### Changing Lenses

To change a lens, release the cavity seal using a small screwdriver and fix the new lens into place with the smooth side facing outwards. Verify that the word TOP is located at the top of the lens (alternatively a notch may appear on the bottom edge of the lens) before snapping the cavity seal back into place.

### Battery Replacement

In case of a low battery (2.5 V and below), the sensor low battery condition is reported to the Control System and low battery message is displayed

To replace a battery: Open the housing by removing the front cover (see Installation Instructions), replace the battery, and close the front cover.

Close the front cover immediately after each battery replacement.

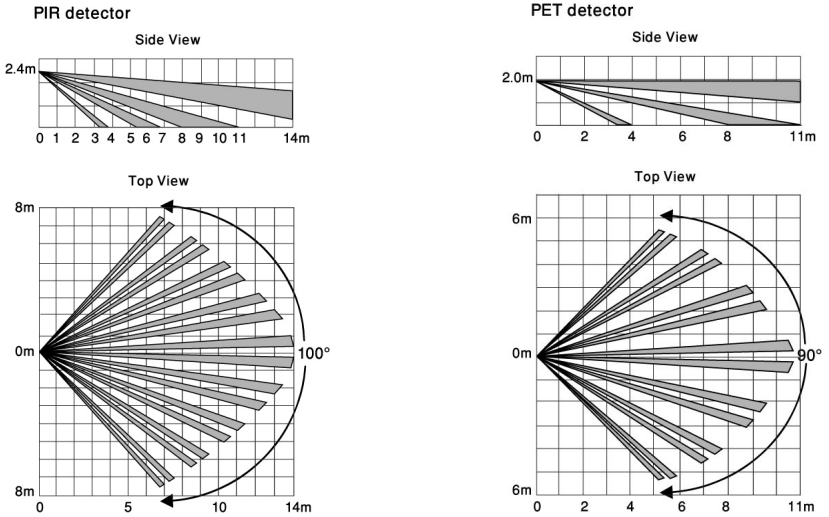



**Figure B- 4: Lens Coverage Diagrams EL-2645 (left) and EL-2645PI (right)**

The diagram shows the coverage pattern for the detector fitted with a standard lens.

EL-2645 complies with EN-50131 2-2 Grade 2 Class II Power Supply Type C

## Directional PIR (EL-2650XL)

The EL-2650XL is a wireless PIR detector that is able to distinguish between permitted and non-permitted motion. This allows the occupants free movement within the premises while detecting intrusion via doors or windows. The detector implements a feature to combat the problem of multiple transmissions, which drastically reduce the life of the batteries. After a transmission is made, the EL-2650XL initiates a delay of approximately three minutes during which transmissions will not be sent. The detector operates in two selectable modes: Curtain and Directional.

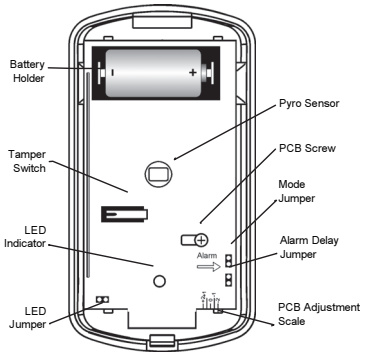



**Figure B- 5: EL-2650XL (Cover Off)**

## Location of Detector

Consider the following before mounting the detector:

- Select a location from which the pattern of the detector is most likely to be crossed by a burglar, should there be a break in.
- Avoid a location that comes in direct contact with radiators, heating/cooling ducts or air conditioners.
- Do not place bulky objects in front of the detector.

⚠ **Do not install the detector above beds, sofas, desks or in any area that people are likely to spend continued periods of time. If the occupant does not move within the delay time, an alarm will be generated when moving away from the protected area.**

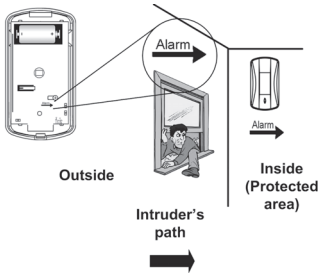



**Figure B- 6: Correct Placement of the Detector**

## Installation Instructions

1. To open the housing, remove the cover screw and, using a flathead screwdriver, press the locking tab at the side of the unit. Remove the Main Board by unscrewing the PCB screw.

☞ Do not touch the face of the PYRO sensor.

2. Set the receiver to Registration mode. Apply battery power by removing the isolator that separates the battery from the contacts on the battery holder. The detector turns on and sends four transmissions in order to be registered with the system. Wait for the receiver to

indicate that the transmitter has been registered successfully. Alternatively, the EL-2650XL can be registered to the receiver by manually entering the transmitter's serial number.

☞ The receiver allocates a transmitter number to each registered unit. Write this number and the number of the zone on the sticker provided. Affix the sticker inside the front cover for future reference.

3. After a warm-up period of 130 sec. indicated by both LEDs' blinking, the detector automatically enters Radio Mode for 4 minutes approximately and sends transmissions every 8 seconds, then it enters Regular mode – see Operation and Adjustment, Selectable Operation Modes below.

4. Knock out the mounting holes and test the transmitter from the exact mounting position before permanently mounting the unit. The EL-2650XL can be wall or ceiling mounted.

☞ The "Alarm" arrow on the PCB (see Figure B- 5 and Figure B- 6) must point inward (i. e. towards the protected area). The recommended height is 2.2 m. If you choose mounting height other than recommended (which is not advised), please perform a walk test to check the lens coverage. The recommended mounting height is the best in terms of detection area.

5. Attach the base to the wall with two screws. If using the Back Tamper switch, insert a screw into the Back Tamper hole (see Figure B- 7) instead of the lower mounting hole. When the detector is removed from the wall, the screw causes the tamper release to break away from the back cover and the Back Tamper switch is released.


**Figure B- 7: Back Tamper Release**

6. Mount the PCB at the required setting using the horizontal adjustment scale and tighten the PCB screw – see Operation and Adjustment, PCB Adjustment below. Attach the front cover and replace the cover screw.

## Operation and Adjustment

### *PCB Adjustment*

PCB adjustment enables you to angle the infrared beams by changing the position of the pyro element in relation to the lens. To adjust the PCB, loosen the PCB screw and slide the PCB to the required position using the PCB adjustment scale as a guide. After adjusting the board, tighten the PCB screw. Slide the board towards -2 to position the beams closer to the wall. Slide the board towards +2 to position the beams further away from the wall. For the correct PCB adjustment, you must take into account the distance of the detector from the wall and the distance of the protected door/window from the detector – seeTable B- 2 as illustrated in Figure B- 8 are relevant both to wall and ceiling mounting.

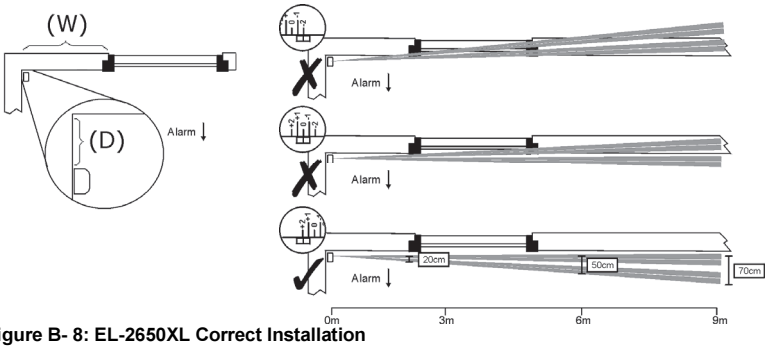



**Figure B- 8: EL-2650XL Correct Installation**

This is a typical installation example where the detector is 5cm from the wall and 2m from the protected window. The top two diagrams show the lens coverage pattern for the detector when incorrectly adjusted to -2 and 0. The bottom diagram shows the PCB correctly adjusted to +2.

**Table B- 2: Recommended PCB Adjustment Scale Settings for Wall and Ceiling Mounting**

| | | Distance of Detector from Wall (D) | | |
|---|---|---|---|---|
| | | **5cm** | **25cm** | **50cm** |
| *Distance of Door/Window from Detector (W)* | Up to 2m* | +2 | 0 | -1 |
| | 4m | +2 | 0 | -1 |
| | 6m | +2 | 0 | 0 |
| | 8m | +2 | +1 | 0 |
| | 9m | +2 | +1 | 0 |

It is not recommended to mount the unit less than 40cm away from the path of entry protected by the detector.

## Walk Test

A walk test determines the coverage pattern of the detector. To perform this test, walk across the scope of the detector according to the detection pattern selected. Confirm that the LEDs activate and deactivate as described in Table B- 5. To launch the Walk Test from the Radio mode, after any transmission indicated by LED blinking, press the tamper switch and hold it until the green LED turns on then off (see Figure B- 9, step 1). Release the tamper switch and wait until the red LED turns on and then off (see Figure B- 9, step 2). Press the tamper switch once again. Both LEDS are lit momentarily (see Figure B- 9, step 3). The detector enters the Walk Test mode for 4 minutes. During the Walk Test, wait for twenty seconds between movements. To launch the Walk Test from the Normal mode: Just open the detector housing: the tamper is triggered and the detector enters the Walk Test mode for 4 minutes. Walk test should be performed weekly.

In Walk Test mode there are no delays.

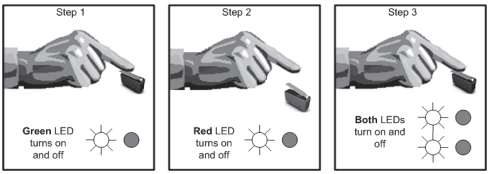


**Figure B- 9: Launching the Walk Test from Radio Mode**

### Selectable Operation Modes

The detector operates in two operation modes. In Directional Mode, crossing the infrared beams is alarm-protected in one direction only. The protected direction is shown by the arrow printed on the PCB. In case of crossing the beams from the non-permitted side (ALARM), red LED is lit for a second. In case of crossing the beams from the permitted side (NO ALARM), green LED is lit for a second and the Alarm delay (see below) starts to count down. In Curtain mode, crossing the beams is alarm-protected in both directions. The Operation mode (Directional/Curtain) is selected using the Mode Jumper – see Table B-3.

### Alarm Delay

The Alarm Delay is a feature designed to allow the occupant to move freely within the protected area without triggering a false alarm. When approaching the protected wall, an alarm is not generated because the detector's beams are crossed from the permitted direction. After detecting permitted motion, the detector counts down the Alarm Delay time. This timer is re-triggered every time the detector detects motion. During the Alarm Delay, the detector permits motion in both directions. The duration of the alarm delay is selected using the Alarm Delay Jumper – see Table B-4.

### LED Indication

The LED indicator turns red to indicate non-permitted motion and green to indicate motion detection in either direction. In the event of an alarm, the LED turns red. To disable the LED, remove the LED Jumper, JP1 located next to the LED indicator – see Table B- 5.

☞ Do not disable the LED until you have successfully walk tested the detector.

### PIR Supervision

The circuit operation of the PIR is checked once per hour. In the event of PIR failure the red LED flashes.

### Battery Replacement

Open the housing by removing the front cover (see Installation Instructions), replace the battery, and close the front cover.

☞ Close the front cover immediately after each battery replacement.

**Table B-3: EL-2650XL's Mode JumperJP3**

| Mode Jumper JP3 | Jumper Position |
|---|---|
| Curtain | Removed |
| Directional | Installed |

**Table B-4: EL-2650XL's Alarm Delay Jumper JP**

| Alarm Delay Jumper JP2 | Jumper Position |
|---|---|
| 1 minute | Removed |
| 4 minutes | Installed |

**Table B- 5: EL-2650XL's LEDs**

| LED | Indication |
|---|---|
| Red | Non-Permitted motion |
| Green | Permitted Motion |

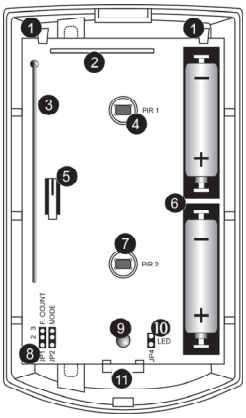
### Signals and Messages:

In case of a low battery (2.5 V and below), the detector low battery condition is reported to the Control System and low battery message is displayed. When the Back Tamper switch is released, the detector sends a tamper condition to the Control System that generates tamper alarm.


**Figure B- 10: Lens Coverage Pattern (Side View)**

## Wireless PIR (EL-2652SR)

The EL-2652SR is a wireless PIR detector designed for use with Electronics Line 3000's supervised wireless range of receivers. The detector is designed for both indoor and external installations and provides good immunity to nuisance alarms caused by pets weighing up to 10kg (22lbs). The EL-2652SR implements a feature to combat the problem of multiple transmissions that drastically reduce the life of the batteries. After each detection the detector initiates a three-minute delay during which transmissions will not be sent.




1. PCB Holding Hooks
2. Transmitter
3. Antenna
4. PIR 1 Pyro Sensor
5. Tamper Switch
6. Battery Holders
7. PIR 2 Pyro Sensor
8. Configuration Jumpers
9. LED Indicator
10. LED Jumper
11. PCB Release Tab

**Figure B- 11: EL-2652SR (Cover Off)**

### Location of Detector

Consider the following before mounting the detector:

- Select a location from which the pattern of the detector is most likely to be crossed by an intruder.
- Avoid a location that comes in direct contact with radiators, heating/cooling ducts or air conditioners.
- Do not place the detector in front of windows subject to direct sunlight or drafts.
- Do not place bulky objects in front of the detector.
- Do not place the detector in an area subject to direct sunlight or objects that may change temperature rapidly.

If installed in external environment:

- Do not place the detector in an area exposed to direct wind or rain.
- Refrain from pointing the detector at roads and alleyways within the detector's range.
- Do not point the detector at trees, bushes and other objects that may be caused to sway by the wind, within the detector's range.

### Pet Immunity Guidelines

It is expected that the detector will eliminate false alarms caused by:

- Animals up to 10kg
- Several small rodents
- Random flying birds

☞ The weight of the animal should only be used as a guide; other factors such as length and color of fur also affect the level of immunity.

For maximum pet immunity the following guidelines are recommended:

- Mount the center of the detector at a height of 1.8m.
- Set the pulse counter for 3 pulse detection.
- Do not aim the detector at stairways that can be climbed by an animal.
- Avoid a location where an animal can come within 1.8m of the detector by climbing on furniture, boxes or other objects.

### Installation Instructions

1. Open the housing by removing the front cover. To do so, insert a screwdriver in the release slot (located at the bottom of the detector between the front and back cover). Turn the screwdriver 90º to release the cover.
2. To remove the PCB, carefully push down the release tab and lift the board to pull it away from the holding hooks.

☞ Do not touch the face of the PYRO sensor.

3. Apply battery power by removing the isolators that separate the batteries from their contacts on the battery holders.
4. Place the Mode jumper over pins 2 & 3 (see Table B- 6); the LED flashes.

☞ Install the Mode jumper only after applying battery power.

**Table B- 6: EL-26552SR's Mode Jumper**

| Mode Jumper Position | Mode |
|---|---|
| Pins 1&2 | Walk Test Mode |
| Pins 2&3 | Radio Mode |
| Removed | Normal Mode |

**Table B- 7: EL-2652SR's Pulse Count Jumper**

| Pulse Count Jumper Position | Pulse Count |
|---|---|
| Pins 1&2 | 1 |
| Pins 2&3 | 2 |
| Removed | 3 |

**Table B- 8: EL-2652SR's LEDs**

| LED Jumper Position | LED Indication |
|---|---|
| Out | Disabled |
| In | Enabled |
| | |

5. Set the receiver to Registration mode and wait for the receiver to indicate that the transmitter has been registered successfully. Write the number of the zone and the transmitter number (if applicable) on the sticker provided. Affix the sticker inside the front cover for future reference.

☞ Alternatively, the EL-2652SR can be registered to the receiver by manually entering the transmitter's serial number.

6. Remove the jumper and place it over one pin for storage - see Mode Jumper Safeguard below.
7. Choose an appropriate mounting height (1.8m recommended for maximum pet immunity) and test the transmitter from the exact mounting position before permanently mounting the unit.

☞ If you choose mounting height other than recommended 1.8m (which is not advised), please perform a walk test to check the lens coverage. The recommended mounting height is the best in terms of detection area.

8. Knock out the mounting holes and attach the base to the wall.
9. If using the Back Tamper switch, insert a screw into the Back Tamper mounting hole located in the center of the back cover Figure B- 13. When the detector is removed from the wall, the screw causes the tamper release to break away from the back cover and the Back Tamper switch is released.
10. Replace the PCB.
11. Attach the front cover making sure to close the plastic housing with the housing screw provided.

### Operation and Adjustment

*Warm-up Time*

The detector will need to warm up for the first 90 seconds after applying power.

*Pulse Counter*

The pulse counter determines the amount of beams that need to be crossed before the detector will produce an alarm. The available options are 1, 2 or 3 pulse count. To set the pulse counter, refer to Table B- 7 for the appropriate jumper setting.

*Walk Test Mode:*

A walk test is performed in order to determine the lens coverage pattern of the detector – see Figure B- 12. Walk Test mode cancels the delay time between detections, enabling you to perform an efficient walk test.

To walk test the detector:

1. Place the Mode Jumper over pins 1 & 2 (see Table B- 6).
2. Walk across the scope of the detector according to the detection pattern selected.
3. Confirm that the LED activates and deactivates accordingly. Wait for ten seconds after each detection before continuing the test.
4. After completing the walk test, remove the jumper and place it over one pin for storage - see Mode Jumper Safeguard below.

### LED Indication

The LED indicator is lit every time a transmission is made. Insert the LED jumper to enable LED indication and remove the LED jumper to disable LED indication.

The LED should only be disabled after successfully walk testing the detector. (See Table B-8)

### Mode Jumper Safeguard

During normal operation, the Mode jumper should be placed over one pin for storage. When the mode jumper is placed over two pins, the detector is either in Radio or Walk Test Mode. As a precaution, these modes are limited to four minutes. After the four minutes have expired, the detector switches back to normal operation. If this happens, you can reset a mode by removing and replacing the mode jumper.

### Battery Replacement

Open the housing by removing the front cover (see Installation Instructions), replace the batteries, and close the front cover.

Close the front cover immediately after each battery replacement.

### Signals and Messages

In case of a low battery (2.5 V and below), the detector low battery condition is reported to the Control System and low battery message is displayed.

When the Back Tamper switch is released, the detector sends a tamper condition to the Control System that generates tamper alarm.

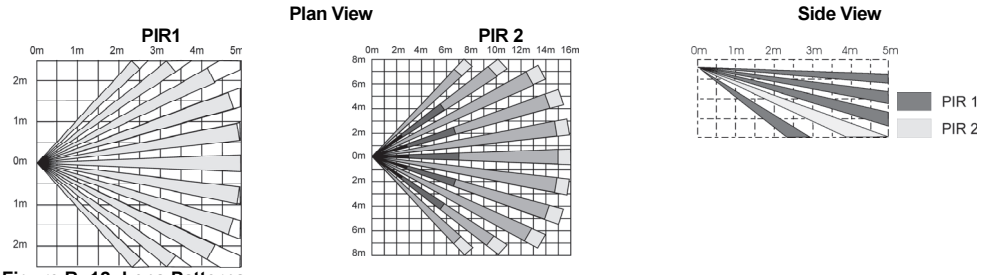



**Figure B- 12: Lens Patterns**

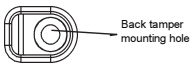



**Figure B- 13: Back Tamper Release**

## Magnetic Contact (EL-2601)

The EL-2601 is a magnetic contact designed for installation on doors and windows.

The EL-2601 implements a feature to combat the problem of multiple transmissions that drastically reduce the life of the batteries. After each detection, the detector initiates a three-minute delay during which transmissions will not be sent. When batteries need replacing, the EL-2601 sends a low battery indication to the Control System.

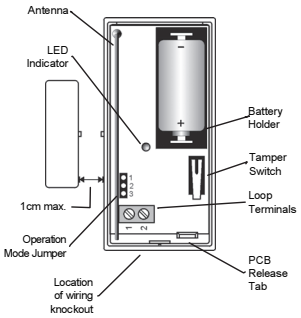



**Figure B- 14: EL-2601 (Cover Off)**

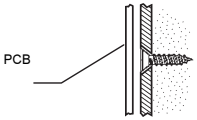



**Figure B- 15: Mounting Screw Position**

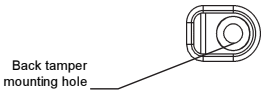



**Figure B- 16: Back Tamper Release**

### Installation Procedure

To install magnetic contacts:

1. To open the housing, insert a small screwdriver at the bottom of the unit between the front and back cover and twist the screwdriver to release the cover.
2. Remove the divider separating the battery from the contacts on the battery holder. When you apply power and the tamper switch is open, the EL-2601 enters Test mode during which a transmission is sent every few seconds. You can terminate the Test mode by closing the tamper switch. Test mode is automatically terminated after approximately five minutes.

☞ Due to the occurrence of voltage delay in lithium batteries that have been in storage, the batteries may initially appear to be dead. In this case, leave the unit in Test mode for a few minutes until the battery voltage level is stabilized.

3. From the Programming menu, select Devices, Zones [911].
4. Select the zone to which you want to register the transmitter; the system initiates Registration mode. When **Save?** appears on the Control System's LCD display, press '√'.
5. After registration, press the EL-2601's tamper switch to terminate Test mode.
6. Before permanently mounting the unit, test the transmitter from the exact mounting position

The alarm is generated by magnet removal at 24 (+/- 0.5) mm and is cleared by magnet approach at 22 (+/- 0.5) mm.

7. To remove the PCB, press the PCB release tab and carefully lift the board and slide the board away from the back cover.

**When handling the PCB, do not apply pressure on the antenna.**

8. The EL-2601 is able to operate in two modes: Magnetic Switch or Universal Transmitter. If connecting a wired contact loop (N.C.), connect the terminal block as follows: 1 - Alarm; 2 - GND. For this purpose, a wiring knockout is provided in the back cover.
9. If using the Back Tamper switch, insert a screw into the Back Tamper mounting hole located in the center of the back cover – see p. 99, Figure B- 16. When the detector is removed from the wall, the screw causes the tamper release to break away from the back cover and the Back Tamper switch is released.
10. Mount the back cover using two screws and replace the PCB. Use ISO 7050 (ST3.5 x 22), #6 X ¾ or similar countersunk screws so that the screw head will not touch the PCB – see p.99, Figure B- 15.
11. To open the magnet's housing, insert a small screwdriver into one of the pry-off slots located at either end of the magnet's back cover and lift to separate from the front cover.
12. Mount the back cover of the magnet using two screws. Make sure that the guideline on the magnet is correctly aligned with the guideline on the transmitter.

Do not install the magnet further than 1cm (0.4") from the transmitter.

13. Test the transmitter, making certain that the LED is lit when opening the door/window and again when closing.
14. Close the front covers of the transmitter and the magnet.

EL-2601 complies with EN-50131 2-6 Grade 2 Class II Power Supply Type C

## Universal Transmitter (EL-2602)

The EL-2602 is a universal transmitter that includes a single output for use in a wide range of wireless applications. When batteries need replacing, the EL-2602 sends a low battery indication to the Control System.

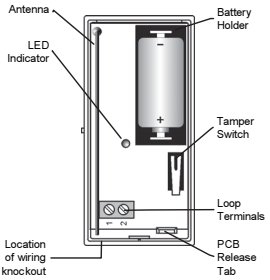



**Figure B- 17: EL-2602 (Cover Off)**

### Installation Procedure

To install universal transmitters:

1. To open the housing, insert a small screwdriver at the bottom of the unit between the front and back cover and twist the screwdriver to release the cover.
2. Remove the divider separating the battery from the contacts on the battery holder. When you apply power and the tamper switch is open, the EL-2602 enters Test mode during which a transmission is sent every few seconds. You can terminate Test mode by closing the tamper switch. Test mode is automatically terminated after approximately five minutes.

☞ Due to occurrence of voltage delay in lithium batteries that have been in storage, the batteries may initially appear to be dead. In this case, leave the unit in Test mode for a few minutes until the battery voltage level is stabilized.

3. From the Programming menu, select Devices, Zones [911].
4. Select the zone to which you want to register the transmitter; the system initiates Registration mode. When **Save?** appears on the Control System's LCD display, press .
5. After registration, press the EL-2602's tamper switch to terminate Test mode.
6. Before permanently mounting the unit, test the transmitter from the exact mounting position.
7. To remove the PCB, press the PCB release tab, carefully lift the board and slide the board away from the back cover.

⚠ **When handling the PCB, do not apply pressure on the antenna.**

8. Knockout the wiring hole in the back cover.
9. Thread the wires through the wiring hole.
10. If using the Back Tamper switch, insert a screw into the Back Tamper mounting hole located in the center of the back cover – see p.99 , Figure B- 16. When the detector is removed from the wall, the screw causes the tamper release to break away from the back cover and the Back Tamper switch is released.

11. Mount the back cover to the wall using two screws and replace the PCB. Use ISO 7050 (ST3.5 x 22), #6 X ¾ or similar countersunk screws so that the screw head will not touch the PCB.
12. Connect the terminal block as follows: 1 - Alarm; 2 - GND.
13. Test the transmitter, making certain that the LED is lit during transmissions.
14. Close the front cover of the EL-2602.

EL-2602 complies with EN-50131 2-6 Grade 2 Class II Power Supply Type C.

## Glassbreak Detector (EL-2606)

The EL-2606 is an intelligent acoustic glassbreak detector with an incorporated wireless transmitter.

### Mounting Considerations

The EL-2606 acoustic detector is omni-directional, providing 360º coverage. The coverage is measured from the detector to the point on the glass farthest from the detector. The detector can be mounted as close as 1m from the glass.

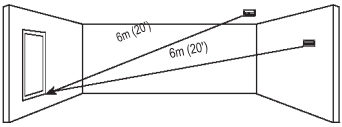



**Figure B- 18: Acoustic Detector Range Measurement (Plate, Tempered, Laminated And Wired Glass)**

*Detector range:*

- If mounting on the ceiling, the opposite wall or adjoining walls, the maximum range is 6m (20') for plate, tempered, laminated and wired glass.
- For armor-coated glass, the maximum range is 3.65m (12').

*Minimum recommended glass size:*

- 0.3m x 0.6m (1' X 2')

*Glass thickness:*

- Plate: 2.4mm to 6.4mm (3/32" to 1/4")
- Tempered: 3.2mm to 6.4mm (1/8" to 1/4")
- Wired: 6.4mm ( 1/4"))
- Laminated: 3.2mm to 6.4mm (1/8" to 1/4")

*For best detection:*

- The detector must always be in direct line of sight of all windows to be protected.
- If mounting on the wall, try to install the detector directly opposite the protected window. If this is not possible, adjoining side walls are also a good location.
- If mounting on the ceiling, install the detector 2-3m (6'-10') into the room.
- Avoid installing in rooms with lined, insulating or sound deadening drapes.
- Avoid installing in rooms with closed wooden window shutters inside.

- Avoid installing in the corners of a room.

The EL-2606 is best suited to rooms with moderate noise.

⚠ **The detector may not consistently detect cracks in the glass, bullets which break through the glass or glass breaking around corners and in other rooms. Glassbreak detectors should always be backed up by interior protection.**

*For best false alarm immunity:*

- Locate the detector at least 1.2m (4') away from noise sources (televisions, speakers, sinks, doors, etc.).
- Avoid rooms smaller than 3m x 3m (10' X 10') and rooms with multiple noise sources.
- Do not use where white noise, such as air compressor noise, is present (a blast of compressed air may cause a false alarm).
- Do not define the zone as 24Hr. It is recommended to register the EL-2606 to a perimeter arming group that arms the perimeter doors and windows of the premises.
- Avoid humid rooms – the EL-2606 is not hermetically sealed. Excess moisture can eventually cause a short circuit and a false alarm.

*Areas to avoid:*

- Glass airlocks and glass vestibule areas
- Noisy kitchens
- Residential car garages
- Small utility rooms
- Stairwells
- Small bathrooms
- Other small acoustically live rooms

For glass break protection in such applications, use shock detectors on the windows or window frames connected to an EL-2602 universal transmitter.

### Installation Procedure

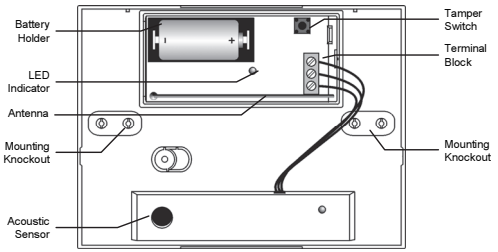



**Figure B- 19: EL-2606 (Cover Off)**

1. Open the housing using a small flat-head screwdriver to separate the base from the cover.
2. Remove the insulator separating the battery from the contacts on the battery holder. When you apply power and the tamper switch is open, the EL-2606 enters Test mode during which a transmission is sent every few seconds. You can terminate Test mode by closing the tamper switch. Test mode is automatically terminated after approximately five minutes.

☞ Due to the occurrence of voltage delay in lithium batteries that have been in storage, the batteries may initially appear to be dead. In this case, leave the unit in Test mode for a few minutes until the battery voltage level is stabilized.

3. From the Programming menu, select Devices, Zones [911].
4. Select the zone to which you want to register the transmitter; the system initiates Registration mode. When **Save?** appears on the Control System's LCD display, press .
5. After registration, press the EL-2606's tamper switch to terminate Test mode.
6. Choose a suitable mounting location according to the guidelines in the previous section.
7. Before permanently mounting the unit, test the acoustic detector and the transmitter from the exact mounting position. For further information on testing the acoustic detector, refer to the following section, Testing Procedures.
8. Knock out the required mounting holes on the back cover.
9. Mount the unit to the wall using the mounting screws provided.
10. Write the number of the zone on the sticker provided and affix the sticker inside the front cover for future reference.
11. Close the front cover making sure that it snaps shut.

### Testing Procedure

The Pattern Recognition Technology™ of the EL-2606 ignores most of the sounds that could cause a false alarm (including glass-break testers). In order to test the EL-2606, you must set the unit to Test mode. In Test mode, processing of the upper and lower frequencies is disabled. This means that the EL-2606 is only listening for mid-range frequencies reproduced by the glassbreak tester. It's these mid-range frequencies that determine the detector's range.

In Normal mode, the tester will not activate the detector unless held directly over the detector.

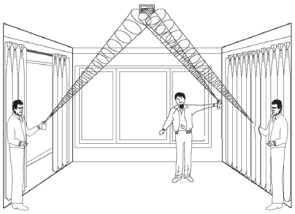


**Figure B- 20: Testing the EL-2606**

Test the detector using the Electronics Line GBS7 or Sentrol 5709C hand-held tester.

1. If using the 5709C tester, set the tester to tempered glass. The 5709C tester has a different setting for each type of glass. The tester should always be set for tempered or laminated glass (either is correct and both have the same range) unless the installer is certain that all the glass to be protected is plate glass.
2. Hold the tester speaker directly on top of the detector and activate the tester; the detector generates an alarm and then enters test mode for one minute. When in test mode, the LED on the detector flashes continuously. You can extend the test mode time by firing the tester at the detector at least once a minute.

Each time the detector generates an alarm, it also goes into Test mode for one minute.

3. Hold the tester near the surface of the glass and aim the tester at the EL-2606. If drapes or blinds are present, test with the hand-held tester behind the closed drapes or blinds.

4. Hold down the test button. When the LED on the detector goes solid momentarily, the glass is within detection range.
5. If the LED does not go solid, but simply continues flashing, re-position the detector closer to the protected windows and retest. This may require adding additional detectors in order to achieve adequate coverage. It is very rare that the detector will not activate within its stated range of coverage. In this case check the battery in the hand-held tester. A new tester battery is likely to restore the range.
6. Test mode automatically terminates approximately one minute after the last activation of the hand-held tester.

⚠ **Room acoustics can artificially extend the range of a glassbreak detector. The specified range of the EL-2606 has been established for worst-case conditions. While the detector is likely to function at the extended range, it may miss a minimum output break or room acoustics may be changed at some future time bringing detector range back into normal 6m (20') conditions. Do not exceed the rated range of the detector regardless of what the tester shows!**

### Hand Clap Test

The Hand Clap test enables you to test the EL-2606 while in Normal mode. This test checks the detectors power supply, microphone and circuit board.

To perform a Hand Clap test:

- Clap your hands loudly under the detector; the LED flashes twice but an alarm is not generated.

## Vibration Detector (EL-2607)

The EL-2607 is a wireless vibration detector that detects vibrations originating from a forced entry attempt and offers adjustable sensitivity that can help to maximize detection whilst preventing false alarms. The EL-2607 implements a feature designed to combat the problem of multiple transmissions, which drastically reduce the life of the batteries. After an alarm transmission, there is a four-minute delay during which further transmissions will not be sent.

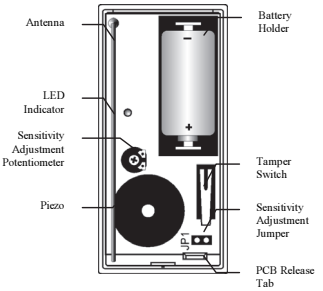



**Figure B- 21: EL-2607 (Cover Off)**

### Installation Procedure

1. To open the housing, insert a small screwdriver at the bottom of the unit between the front and back cover and twist the screwdriver to release the cover.
2. Remove the divider separating the battery from the contacts on the battery holder. When you apply power and the Tamper switch is open, the EL-2607 enters Registration mode during which a transmission is sent every few seconds. You can terminate Registration mode by closing the Tamper switch. Test mode is automatically terminated after approximately five minutes. Note: Due to the occurrence of voltage delay in lithium batteries that have been in storage, the batteries may initially appear to be dead. In this case, leave the unit in Test mode for a few minutes until the battery voltage level is stabilized.
3. While the EL-2607 is in Registration mode, set the receiver to Registration mode and make sure that the transmitter's LED indicator lights up at least twice. After registration, momentarily close the Tamper switch to terminate Registration mode. Write the number of the zone and the transmitter number (where applicable) on the sticker provided. Affix the sticker inside the front cover for future reference.

The EL-2607 can also be registered to the receiver by manually entering the transmitter's serial number.

4. Before permanently mounting the unit, test the transmitter from the exact mounting position. If necessary, relocate the transmitter to a better position.
5. To remove the printed circuit board (PCB), press the PCB release tab, carefully lift the board and slide it away from the back cover.
6. The plastic housing can be screw mounted to doors and window frames or can be affixed directly onto glass windows using a strong double-sided non-cushioned adhesive tape. Mount the back cover and replace the PCB. Use two ISO 7050 (ST3.5 x 22) or similar countersunk screws so that the screw head will not touch the PCB.

The unit must be fixed to a secure base.

7. Once you have mounted the detector, it is necessary to adjust the detector's sensitivity as follows:
   - Make sure that the Tamper switch is open and insert the Sensitivity Adjustment jumper; the LED flashes once every few seconds to indicate that the detector is in Adjustment mode.
   - Strike the protected door or window at the furthest point away from the detector with a screwdriver handle or cushioned tool; the LED flashes every few seconds to indicate the sensitivity level.

- 1 flash = test failed (sensitivity too low)
- 2 flashes = "Normal" sensitivity (recommended)
- 3 flashes = "High" sensitivity
- Fast continuous flashing = test failed (sensitivity too high).

   - If required, turn the Sensitivity Adjustment potentiometer clockwise to increase sensitivity and counter-clockwise to reduce sensitivity.
   - Repeat the sensitivity adjustment test until you achieve the required sensitivity level (i.e. the LED flashes twice or three times every few seconds).

8. After you have adjusted the sensitivity, repeat the test once more and, while the LED is flashing as required, press the Tamper switch in order to save the sensitivity setting.

You can press the tamper switch once or just close the housing.

9. When you press the Tamper switch to save the sensitivity setting, the detector automatically switches from Adjustment mode to Test mode. In Test mode, you can test the sensitivity of the detector by striking the door or window frame. If the impact detected by the detector is enough to generate an alarm, the LED is lit. Make certain that striking the door or window frame softly does not generate an alarm.

In Test mode, there is no four minute alarm delay and alarm detection does not result in the detector sending an alarm transmission.

10. Terminate Test mode by closing the Tamper switch. Test mode is automatically terminated after approximately five minutes.
11. Remove the Sensitivity Adjustment jumper and place it over one pin for storage.
12. Close the front cover of the EL-2607.

**Table B- 3: Operation Mode Summary**

| Operation Mode | Description | Activation |
|---|---|---|
| Registration | A transmission is sent every few seconds allowing the detector to be registered to the receiver. | Activated by applying battery power.<br>Registration mode may be terminated by pressing the Tamper switch or is automatically terminated after 5 minutes. |
| Adjustment | Striking the protected door or window frame indicates the detector's sensitivity setting. | Activated by installing the Sensitivity Adjustment jumper while the Tamper switch is open. Pressing the Tamper switch during Adjustment mode saves the adjustment setting. |

| Operation Mode | Description | Activation |
|---|---|---|
| Test | Striking the protected door or window frame indicates whether the impact would generate an alarm. | Activated automatically when you press the Tamper switch to save the adjustment setting. Test mode may be terminated by pressing the Tamper switch or is automatically terminated after 5 minutes. |
| Normal | Striking the protected door or window frame sends an alarm transmission to the receiver. | Regular operation mode of detector. In this mode, alarm activation is limited to one alarm approximately every 4 minutes. |

## Smoke Detector (EL-2703)

The EL-2703 is a single station, photoelectric smoke detector with a built-in supervised wireless transmitter.

When sufficient smoke is detected, or the test feature is operated, the detector will sound its alarm horn and the transmitter will send an ALARM message. The Alarm output in the receiver will remain activated until the alarm condition clears.

The smoke alarm base lock discourages unauthorized removal of the smoke alarm by requiring a screwdriver to remove the alarm from the base.

The smoke alarm provides the following signals to the control panel:

- Alarm
- Alarm restore
- Low battery
- Tamper
- Supervision

⚠ **This smoke detector is designed for use in a single residential unit only, which means that it should be used inside a single family home or apartment. It is not meant to be used in lobbies, hallways, basements, or another apartment in multi-family buildings, unless there are already working detectors in each family unit. Smoke detectors, placed in common areas outside of the individual living unit, such as on porches or in hallways, may not provide early warning to residents. In multi-family buildings, each family living unit should set up its own detectors.**

**This detector is not to be used in non-residential buildings. Warehouses, industrial or commercial buildings, and special purpose non-residential buildings require special fire detection and alarm systems. This detector alone is not a suitable substitute for complete fire detection systems for places where many people live or work, such as hotels or motels. The same is true of dormitories, hospitals; nursing homes or group homes of any kind, even if they were once single - family homes. Please refer NFPA 101, the Life Safety Code, NFPA71, 72A, 72B, 72C, 72D, and 72E for smoke detector requirements for fire protection in buildings not defined as "households".**

### Selecting a Location

Smoke detectors should be installed in accordance with the NFPA Standard 74 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02169). For complete coverage in residential units, smoke detectors should be installed in all rooms, halls, storage areas, basements, and attics in each family living unit. Minimum coverage is one detector on each floor and one in each sleeping area and attics in each family living unit. Minimum coverage is one detector on each floor and one in each sleeping area.

- Install a smoke detector in the hallway outside every separate bedroom area, as shown in Figure B- 22. Two detectors are required in homes with two bedroom areas, as shown in Figure B- 23.
- Install a smoke detector on every floor of a multi-floor home or apartment, as shown in Figure B- 24.
- Install a minimum of two detectors in any household.
- Install a smoke detector inside every bedroom.
- Install smoke detectors at both ends of a bedroom hallway if the hallway is more than 40 feet (12 meters) long.
- Install a smoke detector inside every room where one sleeps with the door partly or completely closed, since smoke could be blocked by the closed door and a hallway alarm may not wake up the sleeper if the door is closed.
- Install basement detectors at the bottom of the basement stairwell.
- Install second-floor detectors at the top of the first-to-second floor stairwell.
- Be sure no door or other obstruction blocks the path of smoke to the detector.
- Install additional detectors in your living room, dining room, family room, attic, utility and storage rooms.
- Install smoke detectors as close to the center of the ceiling as possible. If this is not practical, put the detector on the ceiling, no closer than 4 inches (10 cm) from any wall or corner, as shown in Figure B- 25.

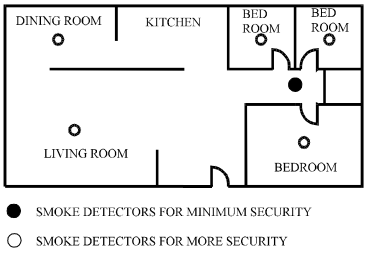



**Figure B- 22: Locations for placing smoke detectors for single residence with only one sleeping area**

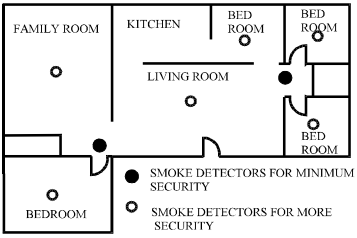



**Figure B- 23: Locations for placing smoke detectors for single-floor residence with more than one sleeping area**

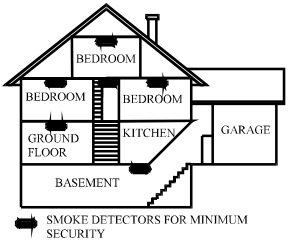



**Figure B- 24: Location for placing smoke detectors for a multi-floor residence**

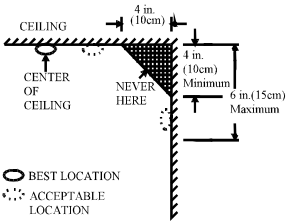



**Figure B- 25: Recommended best and acceptable locations to mount smoke detectors**

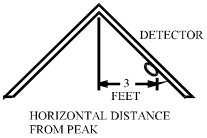



**Figure B- 26: Recommended location to mount smoke detectors in rooms with sloped, gabled, or peaked ceiling**

**(As required by the California State Fire Marshall)**

**"Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows: (1) A smoke detector installed in each separate sleeping area (in the vicinity, but outside of the bedrooms), and (2) Heat or smoke detectors in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and, storage rooms, basements and attached garages."**

**For your information, NFPA Standard 74, Section 2-4 reads as follows:**

**"2-4.1.1 Smoke detectors shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit including basements and excluding crawl spaces and unfinished attics.**

**The provisions of 2-4.1.1 represent the minimum number of detectors required by this standard. It is recommended that the householder consider the use of additional smoke detectors for increased protection for those areas separated by a door from the areas protected by the required smoke detectors under 2-4.1.1 above. The recommended additional areas are living room, dining room, bedroom(s), kitchen, attic (finished or unfinished), furnace rooms, utility room, basement, integral or attached garage, and hallways not included in 2-4.1.1 above. However, the use of additional detectors remains the option of the householder." We recommend complete coverage and use of additional smoke detectors.**

### Where to Install Your Smoke Detectors in Mobile Homes and RVs

Mobile homes and RVs built after about 1978 were designed and insulated to be energy-efficient. In mobile homes and RVs built after 1978, smoke detectors should be installed as described above. Older mobile homes and RVs may have little or no insulation compared to current standards. Outside walls and roofs are often made of non-insulated metal, which can transfer thermal energy flow from outdoors. This makes the air right next to them hotter or colder than the rest of the inside air. These layers of hotter or colder air can keep smoke from reaching a smoke detector. Thereby, install smoke detectors in such units only on inside walls. Place them between 4 and 6 inches (10 ~ 15 cm) from the ceiling. If you are not sure how much insulation is in your mobile home or RV, then install the detector on an inside wall. If the walls or ceiling are unusually hot or cold, then install the detector on an inside wall. Install one detector as close to the sleeping area as possible for minimum security, or install one detector in each room for security. Before you install any detector, please read the following section on "Where not to install your smoke detectors".

### Where Not to Install Your Smoke Detectors

False alarms occur when smoke detectors are installed where they will not work properly. To avoid false alarms, do not install smoke detectors in the following situations:

- Combustion particles are by-products of something burning. Do not install smoke detectors in or near areas where combustion particles are present, such as kitchens with few windows or poor ventilation, garages where there may be vehicle exhaust, near furnaces, hot water heaters and space heaters.
- Do not install smoke detectors less than 6 meters (20 feet) away from places where combustion particles are normally present, like kitchens. If a 20-foot distance is not possible, e.g. in a mobile home, try to install the detector as far away from the combustion particles as possible, preferably on the wall. To prevent false alarms, provide good ventilation in such places.

⚠ **Never try to avoid false alarms by disabling the detector.**

- Do not mount smoke detectors in the path of fresh air intake. The flow of fresh air in and out can drive smoke away from the smoke detector; thus reducing its efficiency. Figure 6 indicates the correct and incorrect locations concerning this problem.
- Near paint thinner fumes.
- In close proximity to an automobile exhaust pipe; this will damage the detector.
- In damp or very humid areas or near bathrooms with showers. Moisture in humid air can enter the sensing chamber, then turns into droplets upon cooling, which can cause false alarms. Install smoke detectors at least 3 meters (10 feet) away from bathrooms.
- In very cold or very hot areas, including unheated buildings or outdoor rooms. If the temperature goes above or below the operating range of smoke detector, it will not work properly. The temperature range for your smoke detector is 4°C to 38°C (40°F to 100°F).
- In very dusty or dirty areas, dirt and dust can build up on the detector's sensing chamber, to make it overly sensitive.
- Additionally, dust or dirt can block openings to the sensing chamber and keep the detector from sensing smoke.
- Near fresh air vents or very drafty areas like air conditioners, heaters or fans. Fresh air vents and drafts can drive smoke away from smoke detectors.
- Dead air spaces are often at the top of a peaked roof, or in the corners between ceilings and walls. Dead air may prevent smoke from reaching a detector. See Figure B- 22, Figure B- 23 and Figure B- 24 for recommended mounting locations.
- In insect-infested areas. If insects enter a detector's sensing chamber, they may cause a false alarm. Where bugs are a problem, get rid of them before putting up a detector.
- Near fluorescent lights, electrical "noise" from fluorescent lights may cause false alarms. Install smoke detectors at least 1.5 meters (5 feet) from such lights.

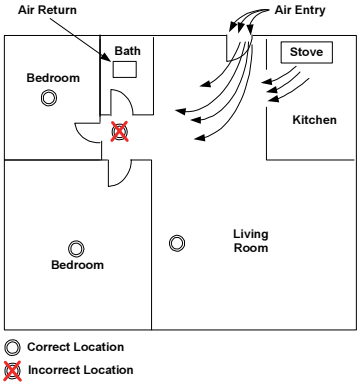



**Figure B- 27: Recommended Smoke Detector Locations**

### Installation

The smoke detector is to be mounted on the ceiling or on the wall, if necessary. Since the smoke detector is a single-station type, it cannot be linked to other detectors.

⚠ **Do not connect the smoke detectors to any other alarm or auxiliary device. Connecting anything else to this detector will prevent it from working properly.**

Read the "Where to Install Your Smoke Detector" and "Where Not to Install Your Smoke Detectors" sections in this Manual before installing. To install the detector, perform the following steps (see Figure B- 28).

### Registration

The EL-2703 must identify itself to the EL wireless system receivers as follows:

1. Set the system to registration mode.
   - Go to the main menu and select [9]>[1]>[1] (Programming > Devices > Zones)
   - Select a zone and press '√'.
2. Open the detector housing.
3. Insert the batteries into compartment. The detector enters registration mode during which a transmission is sent every few seconds. You can terminate registration mode by pressing the Test Button. Test mode is automatically terminated after approximately five minutes.

☞ Due to the occurrence of voltage delay in lithium batteries that have been in storage, the batteries may initially appear to be dead. In this case, leave the unit in Test mode for a few minutes until the battery voltage level is stabilized.

4. As soon as 'Save?' appears, press '√'

### Mounting a Detector

1. Select the installation location.
2. Remove locking pin securing the mounting bracket to the unit (see Figure B- 28).
3. Remove the mounting bracket from the unit by rotating it counterclockwise.
4. Use the bracket as a template for marking the mounting holes
5. Using an appropriate drill, drill two holes at the marks and insert anchors.
6. Using screws (supplied) attach the bracket to the wall as in Figure B- 28.
7. Line up the side slot of the bracket and the detector. Push the detector onto the mounting bracket and turn it clockwise to fix it into place.
8. Insert the locking pin in order to secure the mounting bracket to the detector (see Figure B- 28).
9. Pull the detector outward to make sure it is securely attached to the mounting bracket.

**This detector is not suitable for installation in a hazardous location, as defined in the national electrical code. Do not use detector in an outlet controlled by a wall switch.**

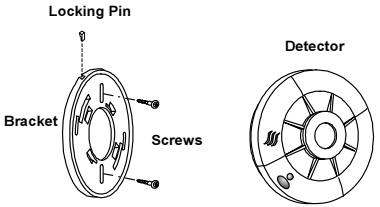



**Figure B- 28: Smoke Detector Installation**

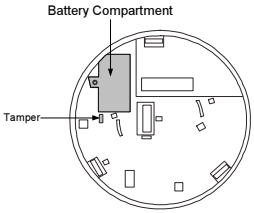



**Figure B- 29: Batteries Compartment/Tamper**

### Red Indicator

When the red LED indicator (see Figure B- 30) flashes once in 30 seconds, it indicates the detector is under normal operation. When the red LED flashes very frequently and an audible alarm sounds simultaneously, it indicates that the detector senses smoke.

The red LED behaves according to one of the following set modes:

Mode 1: The red LED indicator will not reset automatically at the end of an alarm event. This means that after the smoke chamber is cleared, the audible alarm will stop automatically, but the red LED indicator will continue to flash, until it is manually restored by the user. To restore – press the test button for 2-3 seconds, the LED will stop flashing.

Mode 2 (Default): The red LED will reset automatically at the end of an alarm event.

The user can check to which mode the detector is defined and switch between modes.

- To check the mode, press the Test button. The red LED will light up. If the red LED lights up continuously the detector is in Mode 1. If the red LED is blinking the detector is in Mode 2.
- To switch from one mode to another, press the Test button for 8 seconds. The buzzer will sound and the red LED will change its behavior either from a continuous light to a blinking light or from a blinking light to a continuous light.

### Testing Your Smoke Detector

To be sure that detector is working correctly test the detector weekly by performing the following procedure:

Use your finger to firmly press the test button. If the detector is functioning correctly, the alarm horn sounds. To stop the alarm horn, press the test button again. If the detector fails to test properly, have it repaired or replaced immediately.

If the alarm horn begins to beep once every 35 seconds, it means that the detector's batteries are weak. Replace the batteries immediately. Keep fresh batteries on hand for this purpose.

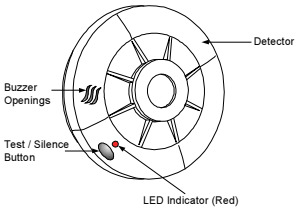



**Figure B- 30: Testing the Smoke Detector**

Cooking smoke or a dusty furnace (sometimes called "friendly fires" (can cause the alarm to sound. If this happens, open a window or fan the air to remove the smoke or dust. The alarm will turn off as soon as the air is completely clear. Do not disconnect the batteries from the detector. This will cancel your protection from fire.

### Taking Care of Your Smoke Detector

To keep your detector in good working condition, you must test the detector weekly, according to the "Testing Your Smoke Detector" section.

Cleaning the Smoke Detector

1. Clean the housing with a dry or damp cloth to remove dust and dirt. If necessary, open the smoke chamber and clean the interior of the detector.
2. Remove the detector from the detector base.
3. Remove the batteries.
4. Using a flat screwdriver release the smoke detector cover.
5. Using a flat screwdriver lift the smoke chamber housing slightly.
6. Use a fine paintbrush to remove dirt from the chamber.
7. After cleaning, close the smoke chamber, fix the housing and remount the detector on the ceiling.

Do not forget to change the batteries!

### Battery Replacement

Replace the detector batteries once a year or immediately when the low battery "beep" signal sounds once every 35 seconds. The low-battery "beep" should last at least 30 days before the batteries die out completely.

If false alarms keep coming from the detector, you should check whether the detector's location is adequate. Refer to section "WHERE TO INSTALL SMOKE DETECTORS." Have your detector moved if it is not located properly. Clean the detector as described above.

**LIMITATIONS OF SMOKE ALARMS**

**Wireless smoke alarms are very reliable, but may not work under all conditions. No fire alarm provides total protection of life or property. Smoke alarms are not a substitute for life insurance.**

**Smoke alarms require a source of power to work.**

**This smoke alarm will not operate and the alarm will not sound if batteries are dead or not installed properly.**

**Smoke alarms may not be heard. A sound sleeper or someone who has taken drugs or alcohol may not awaken if the alarm is installed outside a bedroom. Closed or partially closed doors and distance can block sound. This alarm is not designed for the hearing impaired.**

**Smoke alarms may not always activate and provide warning early enough. Smoke alarms only activate when enough smoke reaches the alarm. If a fire starts in a chimney, wall, roof, on the other side of closed doors, or on a different level of the property enough smoke may not reach the alarm for it to alarm.**

**Smoke alarms are a significant help in reducing loss, injury and even death. However, no matter how good a detection device is, nothing works perfectly under every circumstance and we must warn you that you cannot expect a smoke alarm to ensure that you will never suffer any damage or injury.**

## Keyfobs (EL-2711M / EL-2711P / EL-2614E and EL-2714)

The EL-2711M, EL-2711P, EL-2614E and EL-2714 are keyfob transmitters that are all supported by the system.

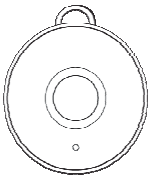


**Figure B- 31: EL-2711M/P**


**Figure B- 32: EL-2714**

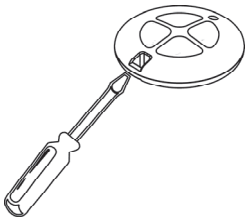


**Figure B- 33: Opening the EL-2714's Casing**

### Registration Procedure

To register keyfobs:

1. From the Programming menu, select Devices, Keyfobs [912].
2. Select the keyfob you want to register; the system initiates Registration mode.
3. Press a button, making sure that the keyfob's LED lights up when the button is pressed.
4. Press the same button again. When **Save?** appears on the Control System's LCD display, press '√'.

### EL-2711M

The EL-2711M is a one-button transmitter that generates a Medical alarm when pressed. The transmitter is water resistant and can be worn around the neck. Its large button makes it ideal for elderly or sight-impaired users.

When the battery is low, the EL-2711M's LED flashes during transmission and a Low Battery signal is sent to the receiver. When either of these two indications is observed, replace the unit.

EL-2711M complies with EN-50131 Grade 2 Class II Power Supply Type C.

### EL-2711P

The EL-2711P is a one-button transmitter that generates a Panic alarm when pressed. The transmitter is water resistant and can be worn around the neck. Its large button makes it ideal for elderly or sight-impaired users.

When the battery is low, the EL-2711P's LED flashes during transmission and a Low Battery signal is sent to the receiver. When either of these two indications is observed, replace the unit.

EL-2711P complies with EN-50131 Grade 2 Class II Power Supply Type C.

### EL-2614E

The EL-2614E is a four-button keyfob transmitter that offers a number of functions including arm, disarm and SOS Panic.

When the battery is low, the EL-2614E's LED flashes during transmission and a Low Battery signal is sent to the receiver. When either of these two indications is observed, replace the batteries.

Batteries must be replaced within seven days of receiving a low battery indication. The estimated battery life is 2 years (avg. 4 activations per day).

EL-2614E complies with EN-50131 Grade 2 Class II Power Supply Type C.

### EL-2714

The EL-2714 is a four-button keyfob transmitter that offers a number of functions including arm, disarm and SOS Panic.

When the battery is low, the EL-2714's LED flashes during transmission and a Low Battery signal is sent to the receiver. When either of these two indications is observed, replace the batteries.

Batteries must be replaced within seven days of receiving a low battery indication. The estimated battery life is 2 years (avg. 4 activations per day).

EL-2714 complies with EN-50131 Grade 2 Class II Power Supply Type C.

To replace the battery:

1. Insert a small screwdriver into the pry-off slot – see Figure B- 33. Carefully twist the screwdriver to separate the front and back of the casing.
2. Observing correct polarity, replace the battery (3V lithium, size: CR2032).
3. Close the casing making sure that the front and back click shut.

## 1-Way Wireless Keypad (EL-2620)

The EL-2620 is a one-way wireless keypad primarily designed as additional arming station, including three arming keys that enable Full, Part, and Perimeter arming modes. Pressing the Full and Perimeter buttons simultaneously generates an SOS panic alarm. A slide-out reference card on the rear of the EL-2620 can be used for writing essential information.

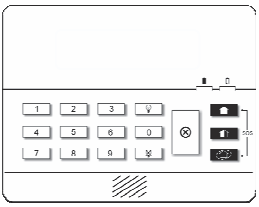


**Figure B- 34: EL-2620**

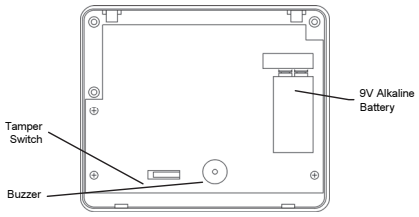



**Figure B- 35: EL-2620 (Back Cover Off)**

### Registration Procedure

To register wireless keypad EL-2620:

1. From the Programming menu, select Devices, Keypads [913].
2. Select the keypad you want to register; the system initiates Registration mode.
3. Press a button on the keypad making sure that a LED lights up when the button is pressed.
4. Press the same button again. When **Save?** appears on the Control System's LCD display, press '√'.

Do not write user codes on the reference card.

## Wireless Indication Keypad (EL-2621)

The EL-2621 Wireless Keypad offers additional two-way functionality. Arm and alarm status is indicated by LEDs—see Table B- 9. During operation, the Control System automatically synchronizes the list of valid user codes at the keypad.

A slide-out reference card on the rear of the EL-2620 can be used for writing essential information.

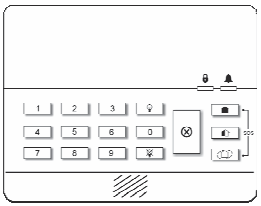


**Figure B- 36: EL-2621**

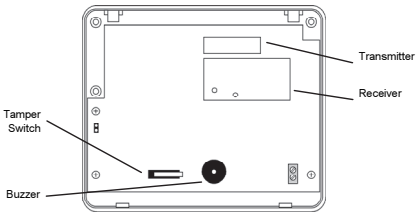



**Figure B- 37: EL-2621 (Back Cover Off)**

**Table B- 9: EL-2621 Status LED Indication**

| LED Status | Meaning |
|---|---|
| | On – System Armed; Off – System Disarmed |
| | Flashing – Alarm indication (in addition, the buzzer sounds two tones every 10 seconds). The alarm indication continues until the next change in arm/disarm status.<br>***Note: Silent alarms are not indicated by the EL-2621.*** |
| Both LEDs | Flashing – the keypad is in Registration mode. |
| Both LEDs & Backlight | Flashing – the Control System is updating the user codes list.<br>***Note: During this indication, the keypad is temporarily locked.*** |

### Registration Procedure

To register wireless keypad EL-2621:

1. Choose an appropriate location for the keypad.
2. Remove the back cover by inserting a small screwdriver into the pry-off slots at the bottom of the unit and twisting.
3. Temporarily apply power to the keypad using a 12V (200mA) AC/DC adaptor.
4. Register the Control System to the keypad by doing the following:
   - On the Control System, set the Wireless Siren Type to 2-Way Siren/Keypad.
   - With the keypad's tamper switch open, press X on the keypad; the keypad sounds three short tones and both LEDs flash to indicate that it is in Registration mode.

If the keypad does not enter Registration mode when you press the Cancel key, reset the keypad and try again. To reset the keypad, disconnect the power, wait for ten seconds and re-apply power.

   - On the Control System, perform the Wireless Siren Test [703] twice. Each time a transmission is received, the keypad sounds one long tone. After the second transmission is received by the keypad, both LEDs stop flashing to indicate that the Control System was registered successfully and Registration mode has been terminated.
5. Register the keypad to the Control System by doing the following:
   - Temporarily close the keypad's tamper switch.
   - Set the Control System to Registration mode – see p. 9, 2.2.3, Stage 3 – Register the Transmitters.
   - Press a button on the keypad.
   - Press the same button again.
   - Confirm registration in the Control System.

   After registration, the Control System transmits user code data to the keypad. This data transmission also occurs after user codes are edited and after each time the keypad or Control System are reset. While the keypad is receiving user code data, both LEDs and the backlight flash and the keypad is temporarily locked. This process may take up to two minutes.

Alternatively, the EL-2621 can be registered to the Control System by manually entering the keypad's serial number.

6. Test the keypad from the exact mounting position before permanently mounting the unit.
7. Remove the adaptor from the electricity outlet and disconnect it from the keypad.
8. Place the rear cover in position against the wall and mark the four mounting holes.
9. Install wall anchors in the appropriate positions.
10. Thread the adaptor's cable through the wiring hole and connect the adaptor to the keypad's DC power input – *do not apply power yet!*
11. Mount the keypad to the wall using four screws.
12. Close the front cover and apply power to the keypad.

## Flood Detector (EL-2661)

The EL-2661 is an indoor flood detector and transmitter intended for installation adjacent to hot water heaters, washing machines, central air conditioner condenser pans and anywhere prone to damage caused by an undetected water leak. In the event of flooding or leakage, the EL-2661 notifies the Control System after detecting the presence of water for a period of at least 30 seconds.

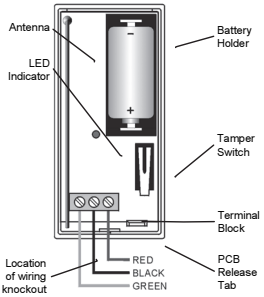



**Figure B- 38: EL-2661 Transmitter (Cover Off)**

⚠ Batteries must be replaced within seven days of receiving a low battery indication. The estimated battery life is 4 years (avg. 25 activations per day).

### Installation Procedure

1. To open the transmitter's housing, insert a small screwdriver at the bottom of the unit between the front and back cover and twist the screwdriver to release the cover.
2. Remove the divider separating the battery from the contacts on the battery holder. When you apply power and the tamper switch is open, the EL-2661 enters Test mode during which a transmission is sent every few seconds. You can terminate Test mode by closing the tamper switch.

   Test mode is automatically terminated after approximately five minutes.

☞ Due to the occurrence of voltage delay in lithium batteries that have been in storage, the batteries may initially appear to be dead. In this case, leave the unit in Test mode for a few minutes until the battery voltage level is stabilized.

3. From the Programming menu, select Devices, Zones [911].
4. Select the zone to which you want to register the transmitter; the system initiates Registration mode.
5. When **Save?** appears on CommPact LCD display, press .
6. After registration, press the EL-2661's tamper switch to terminate Test mode.
7. Choose a mounting location. The transmitter should be positioned in a vertical position high on the wall in order to optimize reception. The detector should be placed in a position where water will accumulate rapidly in the event of a flood.
8. Before permanently mounting the unit, test the transmitter from the exact mounting position.
9. To remove the PCB, press the PCB release tab, carefully lift the board and slide the board away from the back cover.

⚠ **When handling the PCB, do not apply pressure on the antenna.**

10. Knockout the wiring hole in the back cover.
11. Mount the back cover to the wall using two screws and replace the PCB. Use #6 x 3/4" countersunk wood screws (ISO 7050 - ST3.5 x 22) or similar countersunk screws so that the screw head will not touch the PCB – see Figure B- 15.
12. Thread the detector's cable through the wiring hole.
13. Connect the detector's cable to the terminal block as shown in Figure B- 38.
14. Replace the PCB inside the back cover making sure that it clicks into place.
15. Before permanently mounting the detector, place a wet rag over the terminals (located on the bottom of the detector).

    The EL-2661 transmits an alarm 30 seconds after detecting the presence of water. This 30-second delay verifies that the alarm is caused by a significant amount of water and is designed to prevent false alarms caused by humidity or condensation. Similarly, the EL-2661 sends a restore signal 30 seconds after the detector's terminals are dry. When the tamper switch is open, the 30-second delay is canceled in order to speed up the test procedure. Make certain that the LED is lit during transmissions.

☞ The LED indicator does not function when the tamper switch is closed.

16. Fix the detector to the floor using the two screws, spacers and wall anchors provided. Alternatively, you can fix the detector to the floor using the double-sided adhesive tape provided – see the following section.
17. Close the front cover of the transmitter.

### Detector Installation with Double-sided Adhesive Tape

If using double-sided adhesive tape to install the detector, perform the following procedure for best results:

1. Clean all surfaces using a low strength solvent such as isopropyl alcohol to ensure that the surfaces are clean, dry and grease-free.
2. Peel away the backing from the pieces of adhesive tape and attach them to the underside of the detector.

☞ Do not touch the adhesive with your fingers.

3. Peel away the backing from the other side of the adhesive tape.
4. Fix the detector to the floor by firmly applying pressure for a few seconds.

## Gas Leak Detector (EL-2762)

The EL-2762 is a Wireless Gas Leak Detector that detects mixtures of air and combustible gases (Natural Gas, Methane, Propane and Butane).

Upon detecting the presence of gas, the unit emits an alarm and notifies the control panel.

The main features of your Wireless Gas Leak Detector include the following:

- Integrated transmitter designed for use with EL's wireless alarm systems
- Easy to install
- Monitoring for Natural Gas, Methane, Propane and Butane in a continuous manner
- Loud alarm (85 dB) when detecting a buildup of Gas
- Test button
- Self-test

### Selecting the Installation Location

The Wireless Gas Leak Detector will function effectively if installed in the correct location. Consider the following before mounting the gas alarm:

- Methane (Natural) Gas: Methane is lighter than air, therefore the greatest concentration of gas is found right below the ceiling, and therefore the Wireless Gas Leak Detector should be installed on the wall, approximately 30 cm (12") below the ceiling.
- Butane Gas: Propane and Butane are heavier than air, therefore the greatest concentration of gas is found right above the floor level. The Wireless Gas Leak Detector should therefore be installed about 30cm (12") above the floor. Do not mount in a location where the gas alarm could be damaged by dirt, liquids, etc.

☞ Do not touch the adhesive with your fingers.

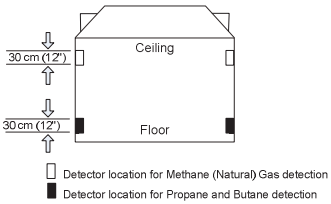



**Figure B- 39: Recommended Location for Methane and Butane Gas Detection**

- Install the detector in close proximity to every gas-operated appliance.

Do not:

- Install the gas detector directly on any gas appliance.
- Install the gas detector in sealed or closed compartments or in an area where a wall or a closed door can obstructs the flow of gas to the gas alarm.
- Install the gas detector in locations where fans, open doors, open windows etc. may prevent gas from reaching the detector.
- Install the gas detector in any room where aerosols or ammonia are used (e.g. bathrooms).

### Installing the Detector

1. Remove the mounting bracket from your unit according to Figure B- 40.

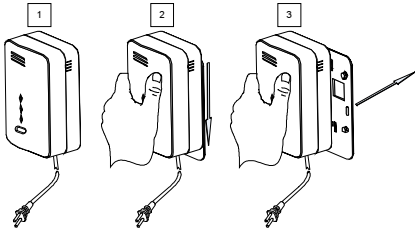



**Figure B- 40: Mounting the Detector**

2. Hold the Mounting bracket against the wall as a template and mark the locations for the 2 mounting holes.
3. Using a 3/16-inch (5 mm) drill bit, drill two holes at the marks and insert wall plugs (Figure B- 41).

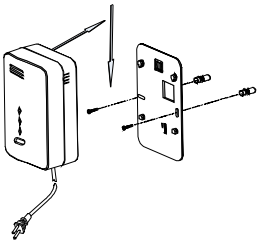


**Figure B- 41: Securing the Detector**

### Secure the Mounting Bracket to the Wall

1. Line up the side slot of the bracket and the detector. Push the detector onto the mounting bracket and fix it (see arrow direction, Figure B- 41). Pull the detector outwards to make sure that it is securely attached to the mounting bracket.
2. Connect the detector power cable to the wall power outlet.

### Transmitter/Receiver Communication Setup

1. Set the panel to registration mode.
2. Insert the batteries into compartment. The detector enters registration mode during which a transmission is sent every few seconds. You can terminate registration mode by pressing the Test Button. Test mode is automatically terminated after approximately five minutes.
3. Verify that the detector has been identified by the receiver.

### Testing the Detector

To test the detector (do not test when detector is at warm up mode), press the Test Button.

The red and orange LED's will flash and a sound will be heard

### Muting the Detector

You can partially mute the detector in an event of alarm by pressing the Test Button. The Red LED will continue to flash and a short beep will be heard every 16 seconds.

### Detector Malfunctioning

A malfunctioning unit is indicated by beep-sounding on and off sequentially, i.e., beeping for 3 seconds with 3 seconds delay between two beeps. If this occurs, unplug the detector from the power source for 10 seconds and then plug the unit again. Should the unit beep intermittently, DO NOT use this detector. Send the malfunctioning unit for servicing.

### Taking Care of the Detector

You have to maintain the detector frequently to ensure it working properly. Few tips are provided for you to take care of your detector:

1. Use a vacuum cleaner to clean the air vents occasionally to keep them free of dust.
2. Push the Test button on your detector to test its operating function once every week.

### LED & BUZZER Indication

The LED light and buzzer turn on and/or off to indicate various situations. There are four different light and buzzer operations:

**Table B- 10: EL-2762 Status LED Indication**

| LED Color | LED Status | Meaning |
|---|---|---|
| Green (Power) | Flashing (for 4 minutes) | Warm up (the status between Power -Up and Normal operation) |
| | On | Normal Condition (Power On) |
| Red (Alarm) | Flashing + Sequential Alarm Sound | Alarm |
| Orange (Service) | On | Malfunction/ detector interruption |

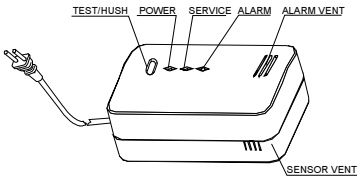



**Figure B- 42: LED & BUZZER Indication**

### Action to Take when Alarm Sounding

In case of harmful levels of gas being detected, your detector will go into a continuous full alarm. Try to take the following necessary actions immediately or evacuate the building:

- Widely open doors and windows
- Disconnect electrical appliances
- Avoid open fire
- Repair the gas leak by a professional gas repairer

### Actions to Take after the Problem is Corrected

Once the problem about the gas presence in the premises has been corrected, the alarm of the detector should be off. After waiting for 10 minutes, push the Test button to test the detector so that you can make sure that the detector is working properly again.

## Carbon Monoxide Detector (EL-2764)

The EL-2764 is a Wireless Carbon Monoxide Detector (CO) that detects the buildup of Carbon Monoxide. Upon detecting the CO gas, the unit emits an alarm and notifies the control panel.

The main features of your CO gas detector include the following:

- Integrated transmitter designed for use with EL's wireless alarm systems
- Easy to install
- Monitoring of carbon monoxide in a continuous manner
- Loud alarm (85 dB) when detecting a buildup of carbon monoxide
- Test button
- Continuous Self-testing function

### What You Should Know About Carbon Monoxide

Carbon monoxide, also known as "CO" by the chemical form, is considered to be a highly dangerous poisonous gas, because it is colorless, odorless, tasteless and very toxic. In general, biochemistry phenomena have shown that the presence of CO gas inhibits the blood's capacity to transport oxygen throughout the body, which can eventually lead to brain damage.

In any closed space (home, office, recreational vehicle or boat) even a small accumulation of CO gas can be quite dangerous.

Although many products of combustion can cause discomfort and adverse health effects, it is CO gas which presents the greatest threat to life.

Carbon monoxide is produced by the incomplete combustion of fuels such as natural gas, propane, heating oil, kerosene, coal, charcoal, gasoline, or wood. The incomplete combustion of fuel can occur in any device which depends on burning for energy or heat such as furnaces, boilers, room heaters, hot water heaters, stoves, grills, and in any gasoline powered vehicle or engine (e.g. generator set, lawnmower). Tobacco smoke also adds CO to the air you breathe.

When properly installed and maintained, your natural gas furnace and hot water heater do not pollute your air space with CO. Natural gas is known as a "clean burning" fuel because under correct operating conditions, the combustion products are water vapor and carbon dioxide (CO2), which is not toxic. The products of combustion are exhausted from furnaces and water heaters to the outside by means of a fuel duct or chimney.

Correct operation of any burning equipment requires two key conditions:

- An adequate supply of air for complete combustion
- Proper venting of the products of combustion from the furnace through the chimney, vent or duct to the outside

Typical carbon monoxide gas problems are summarized here:

- Equipment problems, due to defects, poor maintenance, damaged and cracked heat exchangers
- Collapsed or blocked chimneys or flues, dislodged, disconnected or damaged vents
- Downdraft in chimneys or flues. This can be caused by very long or circuitous flue runs, improper location of flue exhaust or wind conditions
- Improper installation or operation of equipment, chimney or vents
- Air tightness of house envelop/inadequate combustion of air
- Inadequate exhaust of space heaters or appliances
- Exhaust ventilation/fireplace competing for air supply

Potential sources of carbon monoxide in your home or office include clogged chimney, wood stove, wood or gas fireplace, automobile and garage, gas water heater, gas appliance, gas or kerosene heater, gas or oil furnace and cigarette smoke.

### Selecting the Installation Location

Since CO gas moves freely in the air, the suggested location is in or as near as possible to sleeping areas of the home, 30 cm (12 inch) below the ceiling . For maximum protection, a CO detector should be located outside the primary sleeping areas or on each level of your home (see Figure B-43 for suggested locations).

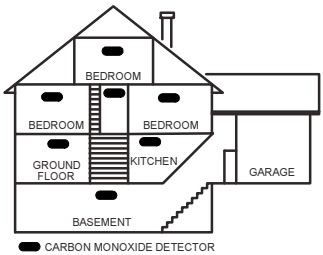



**Figure B- 43: Selecting the Installation Location**

⚠ **This device is not suitable for installation in a hazardous location, as defined by the US National Electrical Code.**

Do not place the detector in the following areas:

- Where the temperature may drop below 4ºC (39ºF) or exceed 38ºC (100ºF).
- Near paint thinner fumes
- Within 1.5 meter (5 feet) of open flame appliances such as furnaces, stoves and fireplaces
- In exhaust streams from gas engines, vents, flues or chimneys
- Do not place in proximity to an automobile exhaust pipe; this will damage the detector

### Installing the Detector

1. Remove the mounting bracket from your unit according to Figure B- 44.

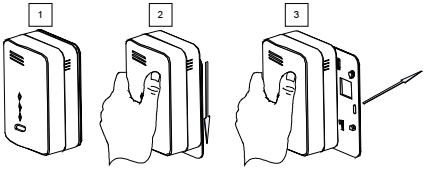



**Figure B- 44: Mounting the Detector**

2. Hold the Mounting bracket against the wall as a template and mark the locations for the 2 mounting holes.
3. Using a 5 mm (3/16-inch) drill bit, drill two holes at the marks and insert wall plugs (Figure B- 45).

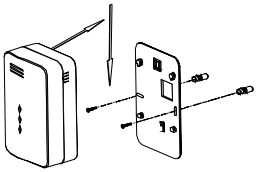


**Figure B- 45: Securing the Detector**

4. Secure the mounting bracket to the wall.
5. Open the battery cover by pushing down on the battery snaps (Figure B- 46).

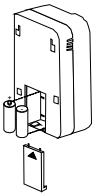


**Figure B- 46: Inserting the Batteries**

6. Insert the batteries (supplied) into the battery compartment. Pay attention to the correct battery polarity (+) (-) and close the battery compartment
7. Line up the side slot of the bracket and the detector. Push the detector onto the mounting bracket until a click is heard (see arrow direction, Figure B- 45).
8. Pull the detector outwards to make sure that it is securely attached to the mounting bracket.

### Transmitter/Receiver Communication Setup

1. Set the panel to registration mode.
2. If you haven't already done so, insert the batteries into the compartment. The detector enters registration mode during which a transmission is sent every few seconds. You can terminate registration mode by pressing the Test Button. Test mode is automatically terminated after approximately five minutes.
3. Verify that the detector has been identified by the receiver.

### LED & BUZZER Indication

The LED light and the buzzer turn on and/or off to indicate various situations. There are four different light and buzzer operations:

**Table B- 11: EL-2762 Status LED Indication**

| LED | LED Status | Buzzer | Meaning |
|---|---|---|---|
| Green (Power) | Flashing On and Off every 30 seconds | | Normal condition |
| Red (Alarm) | Flashing | Sequential Alarm Sound | Alarm |
| Orange (Service) | Flashing On and Off | Sequential Alarm Sound | Internal self test fail - service required |
| All LED's | Flashing | 3 beeps for a period of 3 seconds | Test mode |

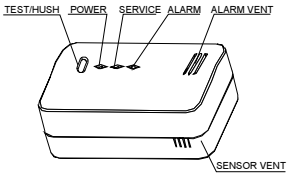



**Figure B- 47: LED & BUZZER Indication**

### Testing and Resetting Your Detector

A green power light indicates that power is supplied. To test the detector, press the Test button. The detector will beep intermittently and the three LEDs will flash. Release the Test button. The beep and the three LEDs will stop and the green LED remains on or flashes every 60 seconds.

### Muting Your Detector

You can partially mute the detector in an event of alarm by pressing the Test Button. The Red LED will continue to flash and a short beep will be heard every 16 seconds.

### Detector Malfunctioning

A malfunctioning unit is indicated by beep-sounding on and off sequentially, i.e., beeping for 3 seconds with 3 seconds delay between two beeps. If this occurs, remove the batteries from the unit for 10 seconds and then install them again. Should the unit again beep intermittently, DO NOT use this detector. Send the malfunctioning unit to the manufacturer for servicing.

### Taking Care of Your Detector

You have to maintain the detector to ensure proper operation:

1. Use a vacuum cleaner to clean the air vents occasionally to keep them free of dust.
2. Press the Test button on your detector to test its operation once every week.

### Actions to Take when Alarm Sounding

In case of harmful levels of CO gas being detected, your detector will go into a continuous full alarm. Try to take the following necessary actions immediately:

- If there is anyone experiencing the effects of carbon monoxide poisoning such as headache, dizziness, nausea or other flu-like symptoms, call your fire department or emergency service department right away. You should evacuate all the people in the premises immediately. Do a head count to check that everybody is present.
- Do not re-enter the premises until the problem has been corrected and the CO gas has been dispersed out and a safe level is reached.
- If no symptoms exist, immediately ventilate the home by opening windows and doors. Turn off fuel burning appliances and call a qualified technician or your utility company to inspect and repair your problem before restarting appliances.

⚠ **Normally an activation of the detector indicates the presence of CO gas. However, the CO gas can be extremely fatal, if it is not detected. The source of the CO gas may come from several possible situations. This detector will only indicate the presence of CO gas at the detector. However, you have to be aware that the CO gas may be present in other areas in the premises.**

### Actions to Take after the Problem is Corrected

Once the problem of the CO gas presence in the premises has been corrected, the detector alarm should be off. After waiting for 10 minutes, push the Test button to test the detector, and by that, being confident that the detector is working properly again.

### Technical Information

The Carbon Monoxide Detector is engineered to be able to provide alarm sounds based on the UL standards due to various exposure times at different level of carbon monoxide concentrations.

According to the Underwriters Laboratories Inc. the carbon monoxide concentrations and exposure time standards for the alarms have been established and specified below:

A full alarm is activated under the following conditions:

- Between 60 and 90 minutes at exposures of 70 ppm
- Between 10 and 30 minutes at exposures of 150 ppm
- Between 4 and 10 minutes at exposures of 400 ppm

## Low Temperature Detector (EL-2663)

The EL-2663 is a wireless low temperature detector designed for use with Electronics Line 3000's supervised wireless range of receivers. The EL-2663 includes a thermostat that causes the transmitter to send an alarm signal when the temperature falls to approximately 5ºC (41ºF).

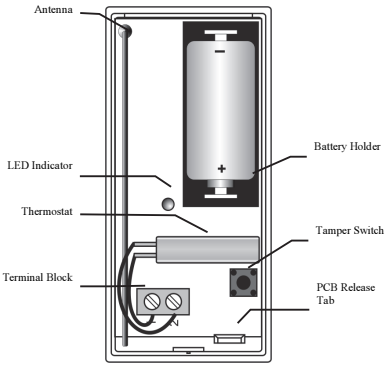



**Figure B- 48: EL-2663 Transmitter (Cover Off)**

### Mounting Location

Consider the following when choosing a mounting location:

- Do not locate the detector near heaters or boilers that may stay warm long after the temperature has dropped in other parts of the premises.
- Mount the detector in a location that is likely to get cold first when the temperature drops.
- Try to locate the detector in a location where there is good air circulation.

### Installation Instructions

1. To open the housing, insert a small screwdriver at the bottom of the unit between the front and back cover and twist the screwdriver to release the cover.
2. Remove the divider separating the battery from the contacts on the battery holder. When you apply power and the Tamper switch is open, the EL-2663 enters Test mode during which a transmission is sent every few seconds. You can terminate Test mode by closing the Tamper switch. Test mode is automatically terminated after approximately five minutes.

Due to the occurrence of voltage delay in lithium batteries that have been in storage, the batteries may initially appear to be dead. In this case, leave the unit in Test mode for a few minutes until the battery voltage level is stabilized.

3. While the EL-2663 is in Test mode, set the receiver to Registration mode and make sure that the transmitter's LED indicator lights up at least twice. After registration, momentarily close the Tamper switch to terminate Test mode. Write the number of the zone and the transmitter number (where applicable) on the sticker provided. Affix the sticker inside the front cover for future reference. Note: Alternatively, the EL-2663 can be registered to the receiver by manually entering the transmitter's serial number.

Alternatively, the EL-2663 can be registered to the receiver by manually entering the transmitter's serial number.

4. Before permanently mounting the unit, test the transmitter from the exact mounting position. If necessary, relocate the transmitter to a better position.
5. To remove the printed circuit board (PCB), press the PCB release tab, carefully lift the board and slide it away from the back cover.
6. Mount the back cover to the wall using two screws and replace the PCB.
7. Test the transmitter making certain that the LED is lit during transmissions.
8. Close the front cover of the EL-2663.

## Outdoor Siren and Strobe (EL-2626AC)

The EL-2626AC is a wireless siren and strobe designed for use with the control system. In the event of an alarm the control system activates the siren and strobe. The siren is sounded until the end of the siren cutoff programmed at the control system. After the siren cutoff has expired, the strobe continues to flash until the system is disarmed.

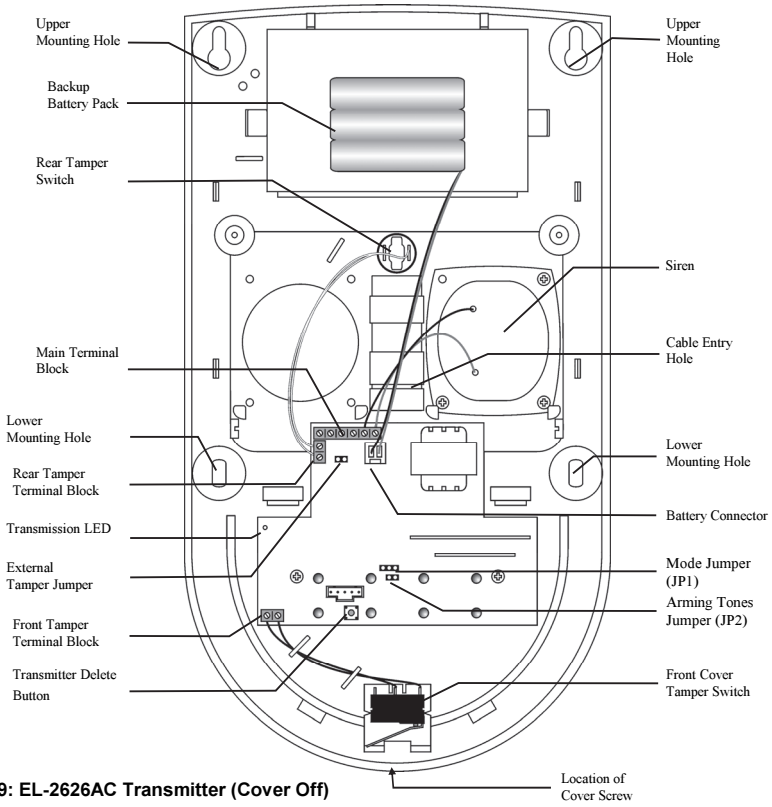



**Figure B- 49: EL-2626AC Transmitter (Cover Off)**

**Wear hearing protection when installing the siren.**

### Installation Instructions

1. Open the housing. To do so, remove the cover screw located at the bottom of the housing and lift the front cover away from the rear housing.
2. Remove the strobe cover. To do so, carefully lift the bottom of the strobe cover away from the rear housing and remove it from the strobe cover holding hooks.
3. Using a Phillips screwdriver, remove the two screws that secure the metal anti-vandal casing and lift the casing from the back cover of the siren.
4. Connect a 12VDC or 9VAC, 500mA transformer to terminals 3 and 4 on the siren's terminal block (polarity is not important) – see Figure B- 50.

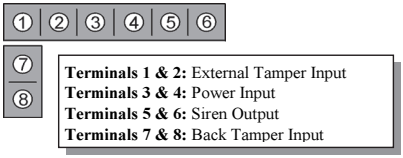



**Figure B- 50: Wiring Connections**

☞ Power down the control system before plugging in the on-board transmitter.

5. On the control system, define the siren type as "2-Way Siren" as follows:
   - From the Programming menu, select Devices, Siren, Ext. Siren Type [9152].
   - Select "2-Way Siren".
6. Define the Siren Cut-off as follows:
   - From the Programming menu, select Devices, Siren, Cut-Off [9154].
   - Enter a siren cut-off time (00:10 - 20:00 minutes).
7. Set the siren to Registration mode by placing the Mode jumper (JP1) as shown in Figure B- 51.
8. Press the Transmitter Delete button on the siren in order to clear the siren's register; the siren sounds an acknowledge tone.
9. On the control system, perform the External Siren Test twice in order to register the control system's transmitter to the EL-2626AC's receiver.

To perform an External Siren Test:

- From the Service menu, from the Service menu, select WL. Siren Test [703] or Ext. Siren Test [702], depending on your control system model; the siren sounds an acknowledge tone when each transmission is received.

☞ During the registration procedure, make certain that no other wireless devices are transmitting so as not to interfere with registration. In the event that the wrong transmitter is registered to the siren's receiver, you can delete the transmitter by pressing the Transmitter Delete button while the Mode jumper is set to Registration mode.

10. Set the control system to Registration mode as follows:
    - From the Programming menu, select Devices, Siren, Register [9151].
    - Set the siren to Transmission mode by placing the Mode jumper (JP1) as shown in Figure B- 51; the siren transmits a signal every few seconds.

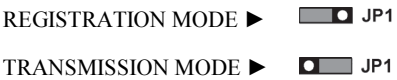



**Figure B- 51: Mode Jumper Configuration**

    - When Save? appears on the control system's LCD display, press '√' on the control system's keypad.
11. Remove the Mode jumper on the siren and place it over one pin for storage and disconnect the power supply.
12. Configure the Arming Tones jumper (JP2) as required. If the jumper is removed, the siren sounds tones and flashes the strobe on arm/disarm. If the jumper is installed, the siren flashes the strobe on arm/disarm but no tones are sounded.
13. Choose a suitable mounting position for the siren. The siren should be mounted on a flat surface in a highly visible position for maximum deterrence against potential intruders.
14. Before permanently mounting the siren, test the reception from the exact mounting position. If necessary, relocate the siren to a better position.
15. To mount the EL-2626AC, place the back cover in position against the wall and mark the upper and lower mounting holes. Install wall anchors in the appropriate positions.
16. Thread the cables through the cable entry hole on the back cover and mount the back cover to the wall using four screws.
17. Connect the transformer to the terminal block and the backup battery to the battery connector. If using Electronics Line 3000's tamper protected external power supply, connect its tamper output to the siren's external tamper input, remove the External Tamper jumper and place it over one pin for storage – see Figure B- 50 for further information on wiring connections and Figure B- 49 for the location of the External Tamper jumper.
18. Replace the metal anti-vandal casing and the strobe cover.
19. Replace the front cover and secure using the cover screw provided. Make certain that the screw is secured tightly so that it closes the front cover tamper switch.

### Signals and Messages

In case of a low battery (2.5 V and below), the detector low battery condition is reported to the Control System and low battery message is displayed.

When the rear tamper switch is released, the detector sends a tamper condition to the Control System that generates tamper alarm.

## Repeater (EL-2635)

The EL-2635 is a wireless repeater designed to extend the range of wireless devices registered to the Control System. Up to four repeaters can be registered to the Control System with 32 transmitters registered to each repeater. The repeater is powered by either 9VAC with a 6V rechargeable backup battery pack or 12VDC. Registration and maintenance tests are performed using a plug-in LCD programming keypad that provides a comprehensive interface to the repeater.

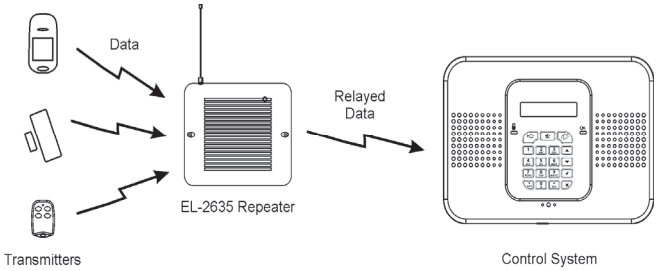



**Figure B–52: Typical Single Repeater Application**

### Installation Procedure

1. Register all wireless devices to the CommPact Control System – see p. 38, 7.2.1 Registering Wireless Devices.
2. Define the Repeater option for each zone that is intended to transmit via the repeater as "Use Repeater" – see p.43, 7.3.7 Repeater
3. Open the EL-2635's plastic housing. To do so, remove the two cover screws and lift the front cover away from the base.

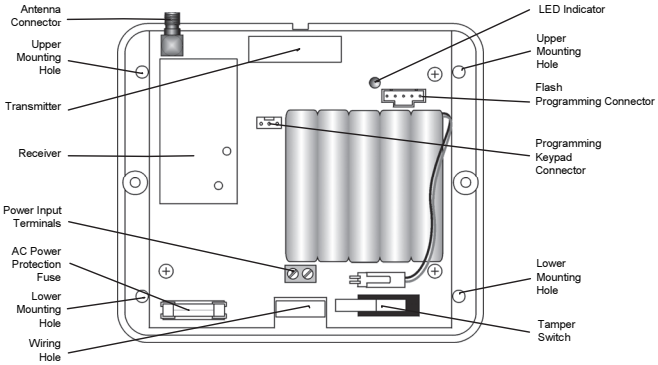



**Figure B- 53: EL-2635 (cover removed)**

4. Connect the antenna provided to the antenna connector.
5. Connect the backup battery pack to the Battery connector.
6. Connect a 9VAC to the Power Input terminal block (polarity is not important when connecting AC to the terminal block).

7. All registration and test functions, described in the following sections, are performed from the LCD programming keypad model no. 5200250 shown in Figure B- 54. Connect the programming keypad to the Programming Keypad connector.

☞ The repeater's programming keypad is not able to operate on battery power only.

8. Register the repeater to the Control System using the following procedure:
   - Set the Control System to Registration mode as follows:
     a. From the Programming menu, select Devices, Repeaters [914].
     b. Select the repeater you want to register (1-4).
     c. From the repeater's sub-menu, select Register [#1].
   - Send two Status transmissions from the repeater as follows:
     a. On the LCD programming keypad, press ▼ until 5. STS Transmit appears on the display.

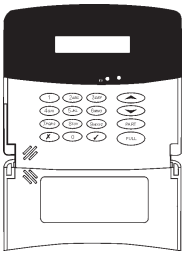


**Figure B- 54: LCD Programming Keypad**

     b. Press '√'..
     c. Press '√'. again.
   - Confirm registration to the Control System as follows:
   - When **Save?** appears on the Control System's LCD display, press '√'.

9. Test the repeater from the required mounting location before permanently mounting the unit.

10. Mount the base to the wall using four screws and replace the front cover.

### Registering Transmitters to the Repeater

You can register up to eight transmitters to the EL-2635 repeater.

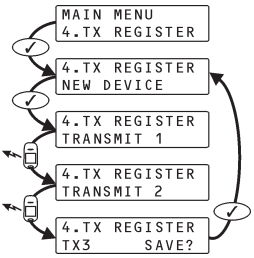



**Figure B- 55: Transmitter Registration Procedure**

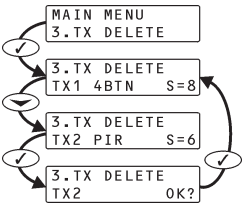



**Figure B- 56: Transmitter Deletion Procedure**

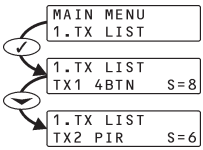



**Figure B- 57: TX List Procedure**

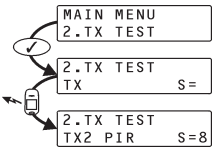



**Figure B- 58: TX Test Procedure**

⚠ **Do not register the same transmitter to more than one repeater.**

To register transmitters to the repeater:

1. On the LCD programming keypad, press ▼ until **4. TX Register** appears on the display.
2. Press '√'; **New Device** appears on the display.
3. Press '√' again; **Transmit 1** appears on the display.
4. Send two transmissions from the device you want to register.
5. When the transmitter number and **Save?** appears on the display, press '√' to confirm registration.

☞ The EL-2635 repeater automatically allocates a transmitter number to each newly registered device. Write this number and the zone number on the sticker provided with the detector and stick it inside the transmitter's cover for future reference.

6. After you have confirmed registration, the display returns to New Device. Press '√' to register another device or press X to exit Registration mode.

### Deleting Registered Transmitters

To delete transmitters from the repeater's register:

1. On the LCD programming keypad, press ▼ until **3. TX Delete** appears on the display.
2. Press '√'; the first transmitter in the list appears on the display.
3. Use the arrow navigation keys (5/6) to scroll to the transmitter you want to delete.
4. Press '√' to select the transmitter.
5. Press '√' again for confirmation; the transmitter is deleted.
6. Select another transmitter to delete or press X to exit.

### Installer Utilities

The EL-2635 repeater offers two installer utilities that serve as a valuable aid during installation and maintenance.

*TX List*

The TX List is a scrollable inventory of all transmitters that are registered to the repeater and their last reported signal strength.

To view the TX list:

1. Press ▼ until 1. **TX List** appears on the display.
2. Press '√'; the first transmitter in the list is displayed.
3. Use the arrow navigation keys (▲/▼) to scroll through the list.
4. Press X to exit the list.

*TX Test:*

TX Test is a utility that enables you to identify transmitters that are registered to the repeater and to test their signal strength.

To perform the TX test:

1. Press ▼ until **2. TX Test** appears on the display.
2. Press '√'.
3. Activate a transmitter; the transmitter number, type and signal strength are displayed.
4. Press X to exit TX Test mode.

## Transmitter Specifications

The technical specifications for the transmitters that appear in this appendix are listed below. All transmitters are available in 868.35, 433.92 or 418MHz (optional) FM frequencies.

**EL-2645 PIR**
Frequency: 868.35, 433.92 or 418 MHz
Power: 3.6V ½ AA Lithium Battery (2 x 3.6V optional)
Current Consumption: 30mA (transmission), 8µA (standby)
Pyroelectric Sensor: Dual Element
Maximum Coverage: 45.3 x 49.9ft (14 x 14m)
Adaptive Temperature Compensation
RFI Immunity: According to EN 50130-4
Operating Temperature: -10 - 40°C
Fire Protection: ABS Plastic Housing
Dimensions: 4.33"H x 2.36"W x 1.77"D (110 x 60 x 45mm)

***Designed to meet EN-50131 2-2 Grade 2 Class II Power Supply Type C**

**EL-2645PI PIR**
Frequency: 868.35, 433.92, or 418MHz
Power: 3.6V ½ AA Lithium Battery (2 x 3.6V optional)
Current Consumption: 30mA (transmission), 8µA standby)
Pyroelectric Sensor: Dual Element
Maximum Coverage: 36.3 x 36.9ft (11 x 11m)
Adaptive Temperature Compensation
RFI Immunity: According to EN 50130-4
Operating Temperature: -10 - 40°C
Fire Protection: ABS Plastic Housing
Dimensions: 4.33"H x 2.36"W x 1.77"D (110 x 60 x 45mm)

***Designed to meet EN-50131 2-2 Grade 2 Class II Power Supply Type C**

**EL-2652SR Wireless PIR**
Frequency: 868.35*, 433.92, or 418MHz
Power: 2 x 1.5V AAA Lithium Battery
Current Consumption: 30mA (transmission) 40µA (standby)
Pyroelectric Sensor: Twin Dual Element
Maximum Coverage: 5m x 5m
Pulse Count: 1, 2, or 3 (selectable)
LED Indicator: Selectable
Adaptive Temperature Compensation
RFI Immunity: 30V/m
Operating Temperature: -25 to 60°C
Fire Protection: ABS Plastic Housing
Dimensions: 133 x 73 x 52mm

***Designed to meet EN-50131 2-2 Grade 2 Class II Power Supply Type C**

**EL-2650XL Directional PIR**
Frequency: 868.35*, 433.92, or 418 MHz
Power: 3.6V ½ AA Lithium Battery
Current Consumption: 30mA (transmission), 20µA (standby)
Pyroelectric Sensor: Quad Element
Maximum Range: 9m
Operating Temperature: -20º to 60ºC
LED indicator: Jumper Selectable
RFI Immunity: 10V/m
Fire Protection: ABS Plastic Housing
Dimensions: 90 x 50 x 40mm

***Designed to meet EN-50131 2-2 Grade 2 Class II Power Supply Type C**

**EL-2601 Magnetic Contact/EL-2602 Universal Transmitter**
Frequency: 868.35, 433.92 or 418MHz
Power: 3.6V ½ AA Lithium Battery
Current Consumption: 25mA (transmission) 10µA (standby)
Loop Input Voltage Range for EL-2602: 0-15VDC/AC (peak to peak)
RFI Immunity: 40V/m
Operating Temperature: 32 to 140°F (0 to 60°C)
Dimensions: 2.5"H x 1.18"W x 0.9"D (65 x 30 x 25mm)

***Designed to meet EN-50131 2-2 Grade 2 Class II Power Supply Type C**

**EL-2606 Glassbreak Detector**
Frequency: 868.35, 433.92 or 418MHz
Power: 3.6V ½ AA Lithium Battery
Current Consumption: 25mA (transmission) 30µA (standby)
Microphone: Omni-directional electret
Maximum Range: 6m (plate, tempered, laminated and wired glass), 3.65m (armor-coated glass)
Operating Temperature: 32 to 122°F (0 to 50°C)
Dimensions: 3.14"H x 4.25"W x 1.69"D (80 x 108 x 43mm)

**EL-2607 Vibration Detector**
Frequency: 868.35, 433.92, 418 or 315 MHz FM
Power: 3.6V ½ AA Lithium Battery
Current Consumption: 25mA (transmission), 10µA (standby)
Operating Temperature: 32-140°F (0 to 60°C)
Dimensions: 2.5"H x 1.18"W x 0.9"D (65 x 30 x 25mm)

**EL-2703 Smoke Detector**
Frequency: 868.35 or 433.92MHz
Power: 2 x 3V ½ AA Lithium Battery CR123A
Current Consumption: 55mA (transmission)
10μA (standby)
Alarm Sound Level: Exceeds 85dB at 10 feet (3m)
Operating Temperature: 14 to 104°F (-10 to 40°C)
Dimensions: Diameter 5.83" (148mm), Height 2" (53mm)

**EL- 2661 Flood Detector**
Frequency: 868.35, 433.92 or 418MHz
Power: 3.6V ½ AA Lithium Battery
Current Consumption: 25mA (transmission)
10μA (standby)
Cable Length: 2.4m
Operating Temperature: 32 to 140°F (0 to 60°C)
Dimensions: 2.5"H x 1.18"W x 0.9"D (65 x 30 x 25mm)

**EL-2620 1-Way Wireless Keypad**
Frequency: 868.35, 433.92 or 418 MHz
Current Consumption: 26mA (transmission),
2μA (standby)
Power: 9V Alkaline Battery (Eveready 522)
RFI Immunity: 40V/m
Operating Temperature: 32-140°F (0 to 60°C)
Dimensions: 4.3”H X 5.1”W X 1.1”D (130 x 110 x 28mm)

**EL-2621 Wireless Indication Keypad**
Frequency: 868.35, 433.92, 418 or 315MHz
Current Consumption: 26mA (transmission),
2μA (standby)
Power: 12VDC
RFI Immunity: 40V/m
Operating Temperature: 0 - 60°C
Dimensions: 4.3”H X 5.1”W X 1.1”D (130 x 110 x 28mm)

**EL-2762 GAS Detector**
Frequency: 868.35, 433.92 or 418 MHz
Power: AC120V/AC230V (depending on model)
Response Wave: Less than 20% in the lower explosion limit
Alarm Sound Level: Exceeds 85dB at 10 feet (3m)
Operating Temperature: 32 to 122°F (0 to 40°C)
Dimensions (L X W X H): 140 X 80 X 49 mm (5.5 inch x 3.2 inch x 2 inch)

**EL-2764 Carbon Monoxide Detector**
Frequency: 868.35, 433.92 or 418 MHz
Power: 3V ½ AA Lithium Battery CR123
Current Consumption: 30mA (transmission)
20μA (standby)
Alarm Sound Level: Exceeds 85dB at 10 feet (3m)
Operating Temperature: 39 to 100°F (4 to 38°C)
Dimensions (L X W X H): 140 X 80 X 49 mm (5.5 inch x 3.2 inch x 2 inch)

**EL2663 Low Temperature Detector**
Frequency: 868.35, 433.92 or 418MHz
Power: 3.6V ½ AA Lithium Battery
Current Consumption: 25mA (transmission)
10μA (standby)
Operating Temperature: 32 to 140°F (0 to 60°C)

**EL-2711M Medical Keyfob**
Frequency 868.35, 433.92 or 418MHz
Power: 3V Lithium Battery CR2032
Current Consumption: 1μA standby
Operation Temperature 14°F – 122°F (-10°C – 60°C)
Dimensions: 2.36"H x 1.57"W x 0.59"D (60 x 40 x 15mm)

***Designed to meet with EN-50131 Grade 2 Class II Power Supply Type C.**

**EL-2711P Panic Keyfob**
Frequency 868.35, 433.92 or 418MHz
Power: 3V Lithium Battery CR2032
Current Consumption: 1μA standby
Operation Temperature 14°F – 122°F (-10°C 0 60°C)
Dimensions: 2.36"H x 1.57"W x 0.59"D (60 x 40 x 15mm)

***Designed to meet with EN-50131 Grade 2 Class II Power Supply Type C.**

**EL-2614E Keyfob**
Frequency: 868.35, 433.92, or 418 MHz
Power: 3V Lithium Battery CR2032
Current Consumption: 20mA (transmission),
2μA (standby)
Operating Temperature: 32 to 140°F (0 to 60°C)
Dimensions: 2.4"H x 1.6"W x 0.6"D (62 x 42 x 15mm)

***Designed to meet with EN-50131 Grade 2 Class II Power Supply Type C.**

**EL-2714 Keyfob**
Frequency: 868.35, 433.92, or 418 MHz
Power: 3V Lithium Battery
Operating Temperature: 32 to 140°F (0 to 60°C)
Dimensions: ø1.77" X 0.51"H (45ø x 13mm)
Current Consumption: 55mA (transmission)
25mA (standby)
Operating Temperature: 32 to 140°F (0 to 60°C)
Dimensions: 5.1"H x 4.3"W x 1.1"D (130 x 110 x 28mm)

***Designed to meet with EN-50131 Grade 2 Class II Power Supply Type C.**

**EL-2626AC Outdoor Siren and Strobe**
Frequency: 868.35, 433.92 or 418MHz
Operating Voltage: 12VDC
Backup Battery: 7.2V/910mAh Ni-MH (rechargeable)
Current Consumption: 10mA (standby), 250mA max. (during alarm activation and strobe)
Siren Output: 106 dB at 1m
Dimensions: 11.8"H x 6.7"W x 2.1"D (300 x 170 x 55mm)

**EL-2635 Repeater**
Frequency: 868.35, 433.92 or 418MHz
Operating Voltage: 9VAC (No. 1332) or 12VDC
Backup Battery: 6V/850mAh
(5 x 1.2V Ni-MH rechargeable cells, size AAAL)
Current Consumption: 100mA max. (during transmission)
Number of Transmitters: 32 max.
Tamper Protection: Front Cover (N.C.)
Operating Temperature: 32 to 140°F (0 to 60°C)
Dimensions: 4.29"H X 4.84"W X 1.1"D (123 x 109 x 27mm)

**Lithium Batteries**

Fire, explosion and severe burn hazard!

When handling lithium batteries follow the listed precautions:

- Do not recharge.
- Do not deform or disassemble.
- Do not heat above 212°F (100°C) or incinerate.

Due to the occurrence of voltage delay in lithium batteries that have been in storage, the batteries may initially appear to be dead. In this case, leave the unit in Test mode or Radio mode for a few minutes until the battery voltage level is stabilized.

# Appendix C: Web User Application

The Web Application provides a full interface to all of the system's user functions. Via the Web, the end user can perform a wide range of tasks such as arm/disarm, zone bypass, and user code management. You can also access the Web User Application from your cellular phone or PDA using the WAP protocol.

## Log In Page

This application is usually part of the service provider's Web site and requires the end user to log in to gain access to the page.

To enter the Web Application, on your browser enter the Web page address supplied by your WEB service provider and press Go. You will see the Login Page.


**Figure C- 1: Login Page**

To login to the Web Application, enter your user name and password supplied by your WEB service provider, and the passcode which is your User Code, then click the Enter button.

⚠ **For your system security reasons, you must change the password immediately at first login. You can change your password on the Change Password page that is accessible from the Settings menu. Your new password should be no less than six characters and must start with a letter – see p. 144, Change Password.**

## The Main Page

After logging in, your system's home page (Main Page) is displayed.

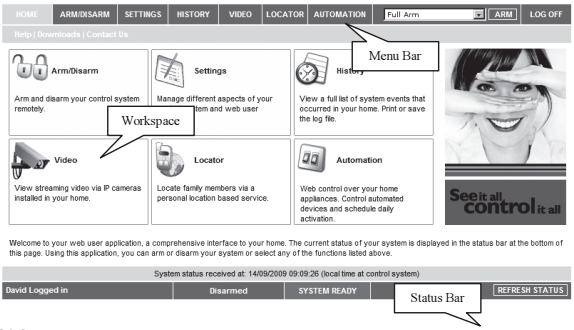



**Figure C- 2: The Main Page**

When using WAP service of your cellular phone, the main page looks the following way:


**Figure C- 3: The Main Page (WAP)**

### Menu Bar

The Menu Bar includes the Main Menu, arm/disarm options list and the Log Off button. The Main Menu offers links to various pages in the Web Application. Use the Logoff button on the right side menu to properly close the session.

The following options are available from the Main Menu:

- Home – pressing the Home button allows the user to return to the Main page at any time
- My Account – offers various options including user code and contact management, event log viewing and zone bypass.
- Help – offers online explanations on how to use the Web Application plus FAQ and customer support options.

### Status Bar

The Status bar displays information on your system's status and the name of the user currently logged in. Above the status bar, the time when the system status display was last updated is shown. This information is displayed according to the local time at the Control System. When logging into the WUApp with a Control System that uses GPRS , the system status refreshes automatically, and can be refreshed manually as well. To refresh the current system status, click the Refresh Status button on the right-hand side of the Status bar.

### Workspace

The workspace offers additional links to the following pages of the application: Users and Codes, History, Alerts, Change Password, Video. When you choose a page, either from the Main Menu, or from the workspace, the page is displayed in the workspace. For example, if you choose History from the Main Menu, a list of system events is displayed in the workspace.

☞ SMS alerts relate only to SMS sent from ELAS (WEB User Application).

## Options Available from Main Page

### Arm/Disarm

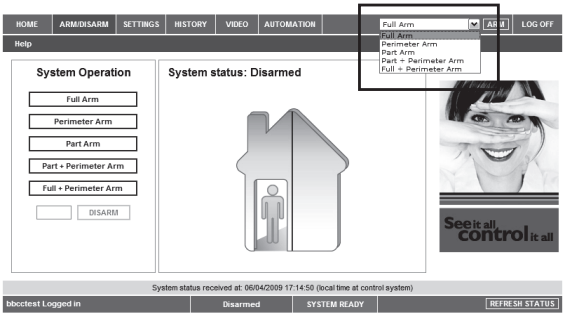



**Figure C- 4: Arm/Disarm Page**

You can arm and disarm the system using the Arm/Disarm drop-down box (upper-right part of the page) or using the buttons in the System Operation Area.

The Web Application allows you to arm and disarm your system via the Web Application using any of the available arming methods. It is important to note that when you arm using the Web application, the system is armed with the programmed delay.

1. On the Status Bar below on the page you can see the current status of the system (in our example it is Disarmed and System Ready, which means that the system and all the detectors are working properly and there are no events to report).
2. It is possible to check if there were alarms in the system – see p. 147.

### System Users and Codes

In this area you can add, delete, or change users and the User Codes for your system (for example, add codes for family members).

1. On The Main Page menu, click Settings.

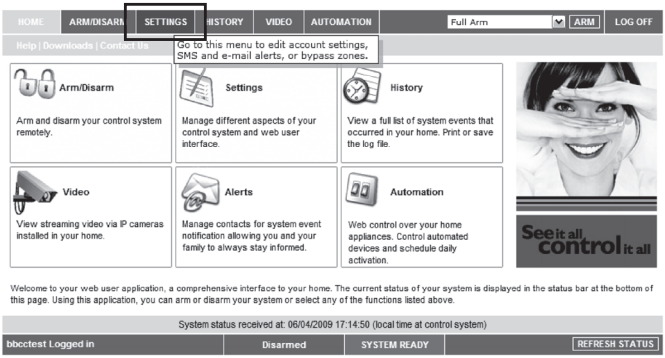



**Figure C- 5: Settings Button**

2. Click System Users and Codes, the following page appears:

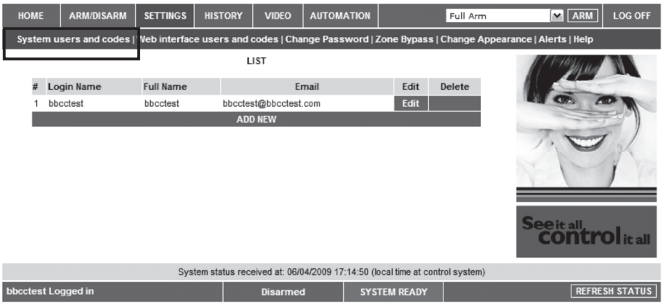



**Figure C- 6: System Users and Codes Page**

### Web Interface Users and Codes

The Users and Codes page provides a useful tool for managing your system's users. From this page you can add, edit and delete users as required. You can even issue temporary (limited) codes to guests that will expire after 24 hours.

For further information on user codes and their various uses, see p. 23, 4.4 User Codes.

On The Main Page menu, click Settings, then Web Interface Users and Codes, the following page appears:

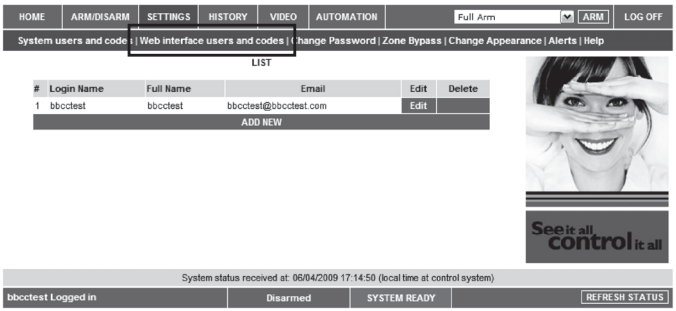



**Figure C- 7: Web Interface Users and Codes Page**

### Change Password

Click Settings then Change Password to change the password you use to login to the Web Application.

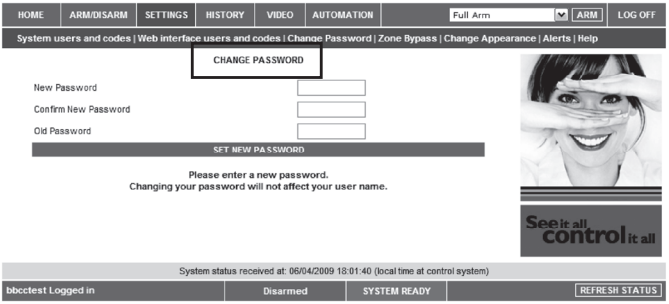



**Figure C- 8: Change Password Page**

## Zone Bypass

On The Main Page menu, click Settings then Zone Bypass to bypass certain zones in your home that you don't want to receive event messages from – see p. 23, Zone Bypassing/Unbypassing. Select the checkboxes for the zones you want to bypass.

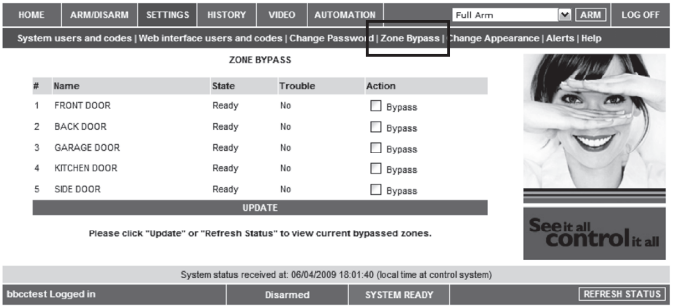



**Figure C- 9: Zone Bypass Page**

## Change Appearance

On The Main Page menu, click Settings then Change Appearance to change the color scheme of your account.

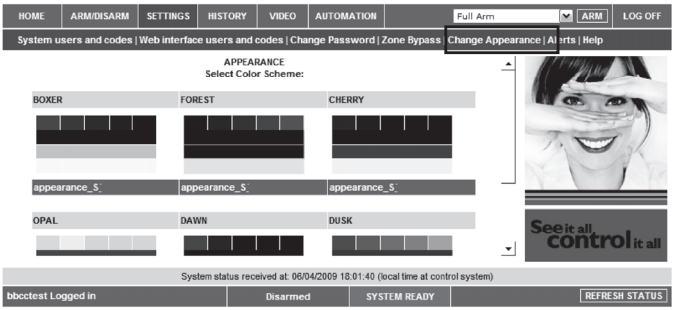



**Figure C- 10: Change Appearance Page**

## Alerts

The Alerts page allows you to enter the details of contacts you wish to be informed when events occur in your system. For example, you can enter your own email address and/or cellular phone number so that you will receive email or SMS notification in the event of an alarm.

1. On The Main Page menu, click the Alerts area.

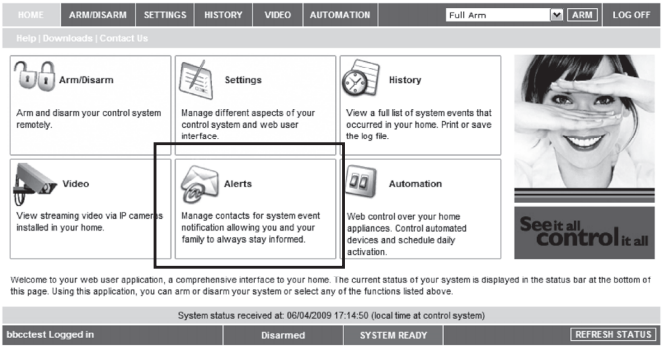



**Figure C- 11: Alerts Area**

The following page appears:

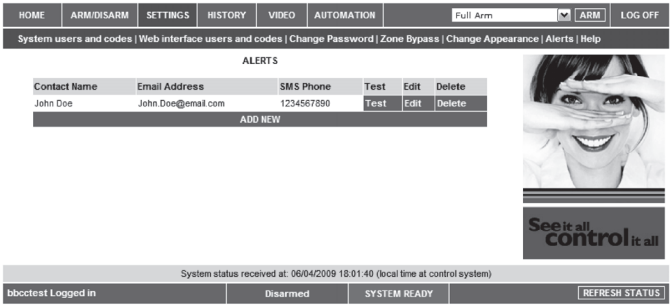



**Figure C- 12: Alerts Page**

2. Press Add new to add email addresses or cellular telephone numbers for the alert messages.

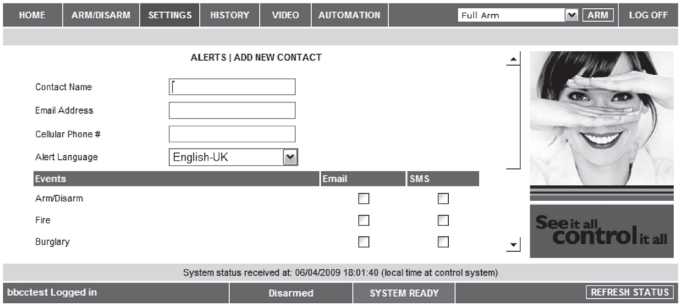



**Figure C- 13: Add New Contact Page**

3. In the Contact Name field, enter the name of the contact to receive alerts.
4. In the Email Address field, enter the email address for email alerts.
5. In the Cellular Phone # field, enter the cellular phone number for SMS alerts.
6. To start receiving the events messages, in the area below, select the checkboxes according to the event type and message type you prefer (email or SMS).
7. Test the alerts you have programmed by clicking the Test button on the Alerts page near the newly added alert.

### History

The History page enables you to view the system's event log. The events are arranged in a table that offers the advantage of allowing you to view a large number of events at once. In addition to viewing the event log, you may also save the log to a file (HTML, PDF or RTF) or print the log.

- On The Main Page menu, click History, the following page appears:

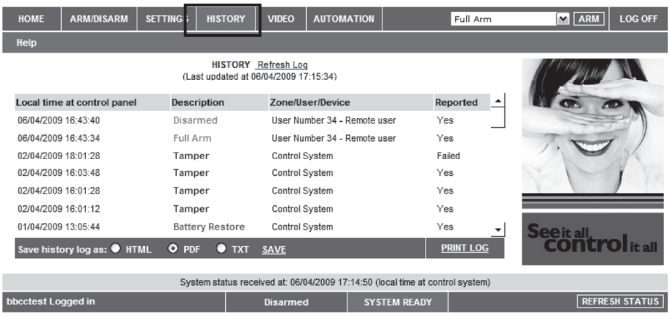



**Figure C- 14: History Page**

## Video

Using IP video cameras installed in your home, the Web Application enables you to view streaming video over the Web in order to check your home and family while you are away.

Discuss this capability with your security service provider to determine if it is applicable to your system.

# Appendix D: Event Table

*Burglary*

| Description | 🔧 | Restore | SIA | Contact ID | Address Field |
|---|---|---|---|---|---|
| Alarm from Zone | | | NBA | 1130 | Device Number |
| Zone Alarm Restore | ◆ | ◆ | NBR | 3130 | Device Number |
| Zone Bypassed | | | NUB | 1570 | Device Number |
| Zone Unbypassed | ◆ | ◆ | NUU | 3570 | Device Number |
| Zone Tamper | | | NTA | 1137 | Device Number |
| Zone Tamper Restore | ◆ | ◆ | NTR | 3137 | Device Number |
| Zone Panic Alarm | | | NPA | 1120 | Device Number |
| Zone Panic Restore | ◆ | ◆ | NPR | 3120 | Device Number |
| Panic Alarm | | | NPA | 1120 | Device Number |
| Tamper | | | NTA | 1137 | Device Number |
| Tamper Restore | ◆ | ◆ | NTR | 3137 | Device Number |
| Duress | | | NHA | 1121 | — |
| Bell Cancel | ◆ | | NBC | 1521 | User Number |
| Disarm after Alarm | | | NOR | 1458 | User Number |
| Water Alarm | | | NWA | 1154 | Device Number |
| Water Alarm Restore | ◆ | ◆ | NWH | 3154 | Device Number |
| Environmental Alarm | | | NUA | 1150 | Device Number |
| Environmental Alarm Restore | ◆ | ◆ | NUH | 3150 | Device Number |
| Exit Error | ◆ | ◆ | NEE | 1457 | User Number |

*Fire*

| | | | | | |
|---|---|---|---|---|---|
| Fire Alarm | | | NFA | 1110 | Device Number |
| Fire Alarm Restore | ◆ | ◆ | NFR | 3110 | Device Number |
| Gas Alarm | | | NGA | 1151 | Device Number |
| Gas Alarm Restore | ◆ | ◆ | NGH | 3151 | Device Number |

*Open/Close*

| | | | | | |
|---|---|---|---|---|---|
| Full Arm | | | NCL | 3401 | User Number |
| Part Arm | | | NCG | 3456 | User Number |
| Perimeter Arm | | | NCG | 3441 | User Number |
| Disarm (entire system) | | | NOP | 1401 | User Number |

*Service*

| Description | 🔧 | Restore | SIA | Contact ID | Address Field |
|---|---|---|---|---|---|
| Edit User Code | ◆ | | NJV | 1462 | User Number |
| Delete User Code | ◆ | | NJX | 3462 | User Number |
| System Programming | ◆ | | NLB | 1627 | — |
| End System Programming | ◆ | | NLX | 1628 | — |
| Remote Programming | ◆ | | NRB | 1412 | — |
| End Remote Programming | ◆ | | NRS | 3412 | — |
| Walk Test | ◆ | | NTS | 1607 | User Number |
| End Walk Test | ◆ | | NTE | 3607 | — |
| Set Time | ◆ | | NJT | 1625 | User Number |
| Set Date | ◆ | | NJD | 1625 | User Number |
| Clear Log | | | NLB | 1621 | User Number |

*Power*

| | | | | | |
|---|---|---|---|---|---|
| Battery Low | | | NYT | 1302 | Device Number |
| Battery Restore | | ◆ | NYR | 3302 | Device Number |
| Transmitter Low Battery | | | NXT | 1384 | Device Number |
| Transmitter Battery Restore | | ◆ | NXR | 3384 | Device Number |
| AC Loss | | | NAT | 1301 | Device Number |
| AC Restore | | ◆ | NAR | 3301 | Device Number |
| Power up (user-log) | | ◆ | NRR | 3301 | Device Number |

*Peripherals*

| | | | | | |
|---|---|---|---|---|---|
| Media Loss | | | NLT | 1351 | Device Number |
| Media Loss Restore | ◆ | ◆ | NLR | 3351 | Device Number |
| Device Trouble | | | NET | 1330 | Device Number |
| Device Trouble Restore | ◆ | ◆ | NER | 3330 | Device Number |
| Transmitter Out of Synch. | | | NUT | 1341 | Device Number |
| Transmitter Re-synch. | ◆ | ◆ | NUR | 3341 | Device Number |
| CP Transmitter Out of Synch. | | | NUT | 1341 | Device Number |
| CP Transmitter Re-synch. | ◆ | ◆ | NUR | 3341 | Device Number |
| Supervision Loss | | | NUS | 1381 | Device Number |
| Supervision Restore | ◆ | ◆ | NUR | 3381 | Device Number |
| GSM Signal Level | ◆ | | NYY | 1605 | Signal Level (0-9) |
| Zone Trouble | | | NBT | 1380 | Device Number |
| Zone Trouble Restore | ◆ | ◆ | NBJ | 3380 | Device Number |

*RF Jamming*

| Description | 🔧 | Restore | SIA | Contact ID | Address Field |
|---|---|---|---|---|---|
| FM Jamming | | | NXQ | 1344 | Device Number |
| FM Jamming Restore | ◆ | ◆ | NXH | 3344 | Device Number |

*Medical*

| | | | | | |
|---|---|---|---|---|---|
| Medical Alarm | | | NMA | 1100 | Device Number |
| Medical Alarm Restore | ◆ | ◆ | NMR | 3100 | Device Number |
| No Motion | | | NNA | 1102 | Device Number |

*Unclassified Events*

| | | | | | |
|---|---|---|---|---|---|
| Periodic Test | ◆ | | NRP | 1602 | — |
| No Arm | ◆ | | NCD | 1654 | — |
| Cancel Report | | | NOC | 1406 | — |

*Address Field*

The address field provides additional information regarding the event. This information is forwarded as numeric data according to the following tables.

| DEVICE NUMBER | |
|---|---|
| **Value** | **Description** |
| 00 | Control System |
| 01-33 | Zones |
| 41-59 | Keyfobs |
| 77-80 | Repeaters |
| 81-84 | Wireless Keypads |
| 91 | Front Panel Keypad |
| 110 | Wireless Siren |

| USER NUMBER | |
|---|---|
| **Value** | **Description** |
| 00 | Control System |
| 01-32 | Users |
| 34 | Remote Access |
| 41-59 | Keyfobs |
| 81-84 | Wireless Keypads |
| 91 | Front Panel Keypad |

# Appendix E: Zone Types

### Normal

A Normal zone is active when the system is armed. This zone generates a Burglary alarm instantly when triggered. Normal zones are designed for detectors installed inside the protected site or doors/windows that are never used to enter the premises.

Event Group: Burglary

### Entry/Exit

When the system is armed, Entry/Exit zones initiate the entry delay when triggered. If the system is not disarmed by the time the entry delay expires, a Burglary alarm is generated. These zones are designed for detectors protecting the entrance to the protected site

Event Group: Burglary

### Follower

If an Entry/Exit zone is triggered first, Follower zones do not generate an alarm when triggered during the entry delay. If the system is not disarmed by the end of the entry delay, the Follower zone generates an alarm. A Follower zone instantly generates an alarm if triggered when the entry delay is not active. These zones are designed for detectors protecting the area in which a keypad has been installed or the area crossed in order to reach the keypad.

Event Group: Burglary

### Panic

Panic zones are always active. When a Panic zone is triggered, a Panic alarm is generated. This zone type is designed for panic buttons that may be pressed in a robbery situation. If the Bell option is disabled for Panic zones, in addition to the siren not sounding, all forms of alarm indication from the keypad are also disabled.

Event Group: Burglary

### Medical

Medical zones are always active. When triggered, Medical zones generate a Medical alarm. These zones are used typically with panic buttons that may be pressed in the event of a Medical.

Event Group: Medical

### Fire

Fire zones are always active. When triggered, Fire zones generate a Fire alarm. These zones are designed for use with smoke detectors and panic buttons that may be pressed in the event of a fire. A Fire zone always activates the siren even if the Bell option is programmed as disabled. Fire alarms sound a pulsating siren to distinguish them from other alarms.

Event Group: Fire

### 24Hr

24Hr zones are always active. When triggered, 24Hr zones generate a Burglary alarm. These zones are used for applications that require constant protection.

Event Group: Burglary

### 24Hr-X

The 24Hr-X zone is a future option that is not available in the current firmware.

Event Group: Not applicable

### Gas

Gas zones are always active. In the event of a gas leak, these zones generate a Gas alarm. Gas zones are typically used with methane/propane/butane or carbon monoxide gas detectors. Gas alarms sound a distinctive siren pattern to easily distinguish them from other alarms. A gas alarm causes the siren to sound until the alarm is restored; the siren cut-off does not apply to gas alarms.

Event Group: Fire

### Flood

Flood zones are always active. When triggered, Flood zones generate a Water alarm. These zones are designed for use with EL-2661 flood detectors.

Event Group: Burglary

### Environmental

Environmental zones are always active. When triggered, these zones generate an Environmental alarm. These zones are designed for applications that monitor environmental conditions such as temperature or humidity. If the Bell option is enabled for Environmental zones, the system sounds trouble tones from the keypad. These tones are sounded until the user presses ▼ on their keypad. Environmental alarms are not affected by the expiry of the siren cut-off.

Event Group: Burglary

### No Motion

No Motion zones are used to monitor the activity of disabled or elderly people. When the system is disarmed, and the detector has not been triggered within a pre-defined period of time (00:00 to 72:00 hours), a No Motion event message is sent to the central station. When the system is armed, this zone behaves as Normal.

Event Group: Medical

### Not Used

This zone type disables the detector output. All alarm transmissions from the detector are ignored.

Event Group: Not applicable

## Electronics Line 3000 Ltd. Limited Warranty

EL and its subsidiaries and affiliates ("Seller") warrants its products to be free from defects in materials and workmanship under normal use for 24 months from the date of production. Because Seller does not install or connect the product and because the product may be used in conjunction with products not manufactured by the Seller, Seller cannot guarantee the performance of the security system which uses this product. Sellers' obligation and liability under this warranty is expressly limited to repairing and replacing, at Sellers option, within a reasonable time after the date of delivery, any product not meeting the specifications. Seller makes no other warranty, expressed or implied, and makes no warranty of merchantability or of fitness for any particular purpose. In no case shall seller be liable for any consequential or incidental damages for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever. Sellers obligation under this warranty shall not include any transportation charges or costs of installation or any liability for direct, indirect, or not be compromised or circumvented; that the product will prevent any persona; injury or property loss by intruder, 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 intruder, robbery or fire without warning, but is not insurance or a guaranty 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 loss based on a claim that the product fails to give warning. However, if seller is held liable, whether directly or indirectly, for any loss or damage arising from under this limited warranty or otherwise, regardless of cause or origin, sellers maximum liability shall not exceed the purchase price of the product, which shall be complete and exclusive remedy against seller. No employee or representative of Seller is authorized to change this warranty in any way or grant any other warranty.

**WARNING:** This product should be tested at least once a week.

**CAUTION:** Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to local regulations.

## Contacting Electronics Line 3000 Ltd.

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CE

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Electronics Line 3000 Ltd. 01/2012 5IN1668