POWERMAX

Fully Supervised Wireless Alarm Control System

Visonic

Programming Guide

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WARNING! The PowerMax control unit has not been investigated by UL for household fire.

WARNING! All model PowerMax outputs are not power limited and shall not be used in UL-listed Systems.

WARNING! Zone type "emergency" can not be used for medical applications in UL-listed systems.

If you re-program a system already in use, the previous system status will be erased upon quitting the installer menu. Be sure to conduct a full walk test, including all windows and doors, to allow re-capture of the system status.

1. INTRODUCTION

1.1 General Guidance

We recommend to program the PowerMax on the work bench before actual installation. Operating power may be obtained from the backup battery or from the AC mains.

The installer's menu is accessible only to those who know the installer's code, which is **9→9→9→9** by factory default.

Obviously, you are expected to use this code only once for gaining initial access, and replace it with a secret code known only to yourself (see Section 2).

You will mainly use 5 control pushbuttons throughout the entire programming process:

NEXT	- to advance within a given menu.
BACK	- to retreat within a given menu.
SHOW / OK	- to go down one level in the programming structure or to confirm data.
HOME	- to go up one level in the programming structure.
AWAY	- instant return to the installer menu (top level).

The sounds you will hear while programming are:

♩	- **Single beep**, heard whenever a key is pressed.
♩♩	- **Double beep**, indicates automatic return to the normal operating mode (by timeout).
☺	- **Happy Melody** (- - - ——), indicates successful completion of an operation.
☹	- **Sad Melody** (———), indicates a wrong move or rejection.

1.2 Accessing the Installer's Menu

To access the installer's menu and navigate within it, refer to Figures 1 and 2 and proceed as follows:

A. Click the <**NEXT**> button until the display reads:

```
INSTALLER MODE
```

B. Click <**OK**> to select the installer's mode. The control panel will prompt you for the installer code.

C. Enter the valid installer code (**9→9→9→9**) if this is the first time you access the installer menu. The "Happy Tune" will sound if the code is correct and the display will change to:

```
1.NEW INSTL CODE
```

You have now gained access to the first item on the installer menu. Detailed instructions on how to deal with each item are given in sections 2 through 10 below.

Note: *At this point refer to Figure 2, which takes over where Figure 1 leaves off.*

D. Click <**NEXT**> to go up in menu item numbers and <**BACK**> to go down in menu item numbers.

E. To quit the installer's menu, click <**AWAY**>. This will take you directly to "**<OK> TO EXIT**".

F. Click <**OK**> to return to the normal operating mode.

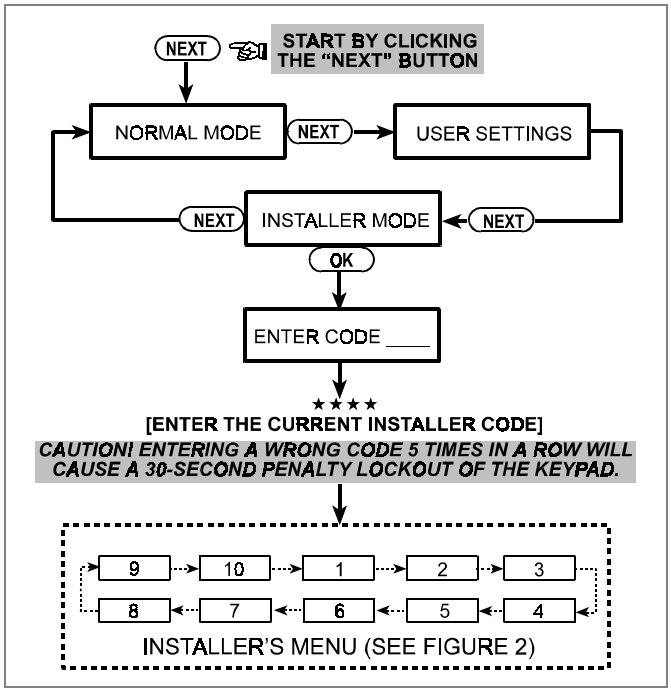


Figure 1. *Gaining Access to the Installer's Menu*

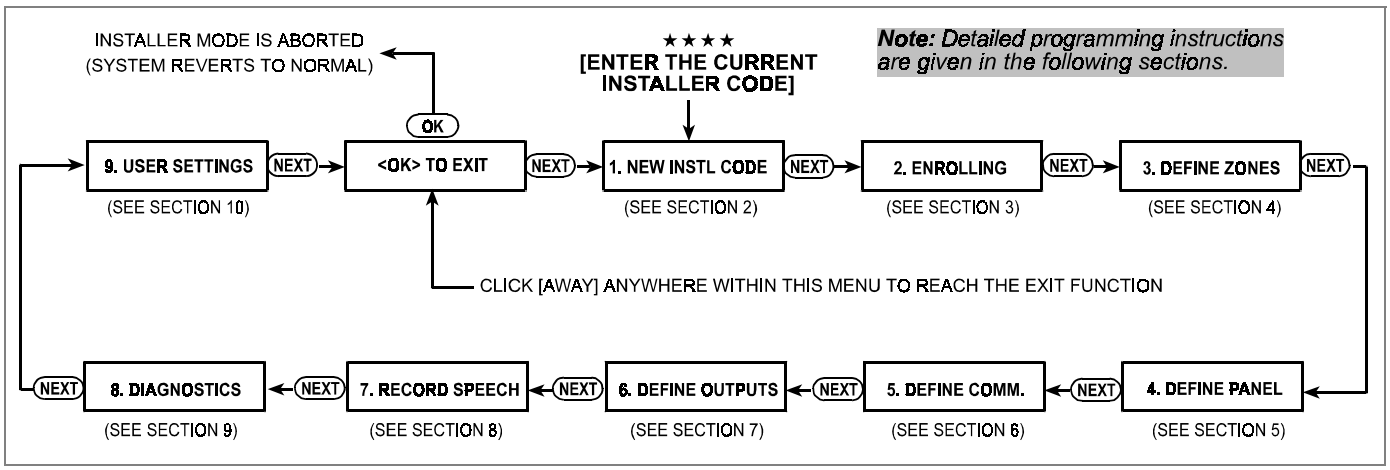


Figure 2. *Navigating within the Installer Menu*

2. SETTING A NEW INSTALLER CODE

A. Having successfully gained access to the installer menu (see Section 1), the display will read:

```
1.NEW INSTL CODE
```

B. To change the installer code, click <**OK**>. The old code will appear (the factory default if this is the first change):

```
INST. CODE  9999
```

The cursor will flash on the first digit of the code.

C. Enter a new 4-digit code. After entering the 4th digit, the cursor will stop flashing.

Attention! Do not use "0000" - this code is invalid.

D. Click <**OK**>. The "Happy Tune" will sound and the display will revert to:

```
1.NEW INSTL CODE
```

E. You may now click <**NEXT**> or <**BACK**> to select any other item on the installer's menu.

3. ENROLLING WIRELESS DEVICES AND KEYFOB TRANSMITTERS

3.1 General Guidance

The ENROLLING mode has two sub-modes:

- ENROLL WL DEVICE (wireless devices)
- ENROLL KEYFOB (multi-button CodeSecure transmitters).

Refer to Paragraphs 3.2 and 3.3 for enrolling procedures.

Attention!** CodeSecure transmitters are mainly used for arming/disarming and can not be enrolled to zones. **For enrolling to zones, use only non-CodeSecure wireless devices.

3.2 Wireless Devices

Wireless devices include various wireless PowerCode detectors and hand-held special-task transmitters. Your control panel must recognize the unique identification code (ID) of each such device in order to supervise them, receive their signals and respond accordingly.

Before anything else, gather all the devices that you intend to enroll, and make sure they all have batteries installed.

- *The lens at the front of PIR and dual-technology sensors should be masked to prevent inadvertent transmission.*
- *Use rubber bands to bind magnetic contact transmitters together with their magnets, to prevent them from sending out alarm transmissions.*

To enroll wireless devices, go through the following steps:

A. Upon gaining access to the installer menu (see Section 1), the display will read "**1. NEW INSTL CODE**".

B. Click <**NEXT**>. The enrolling mode will be selected and the display will show:

```
2. ENROLLING
```

C. Click <**OK**> to select the "enroll wireless devices" sub-mode. The display will change to:

```
ENROLL WL DEVICE
```

D. Click <**OK**> again. The display will read:

```
Zone No :  _
```

E. Suppose that the wireless device you are about to enroll is to be installed in Zone No. 4. Assuming that zone No. 4 is free - no device has yet been enrolled to it - just enter <**0**>⇨<**4**>. The display will change to:

```
Zone No:    04
```

The clear space at the far right tells you that the zone is free - no wireless device has been enrolled to it as yet.

F. Click <**OK**>. The display will prompt you to initiate a transmission from the chosen wireless device:

```
TRANSMIT NOW
```

G. Initiate transmission from the chosen device by:

- Removing the mask from the lens of the PIR motion detector, or
- Separating the magnet from the magnetic contact sensor, or
- Pressing the button of the hand-held miniature transmitter, or
- Pressing the test button of the smoke detector.

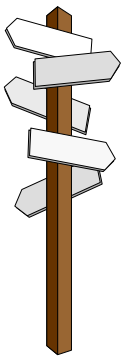
H. In response to the transmitted signal, the "Happy Tune" (- - - ——) will sound and the display will change to:

```
Zone No:    04 ■
```

A dark box will appear at the far right, indicating that the chosen device has been enrolled to Zone No. 4.

***Note:** If the same device is already enrolled to another zone, the "Happy Tune" will sound twice in succession.*

I. From this point on, you may continue in several different directions:



- If you wish to enroll another device to another zone, select the other zone by:
  - Clicking <**NEXT**> to go up (5→6→7.....)
  - Clicking <**BACK**> to go down (3→2→1.....)
  - Clicking <**HOME**> → <**desired zone #**>.

After that, proceed as in the example above.

- To delete a device ID, refer to Para. 3.4.
- To select the **Enroll Keyfob** sub-mode, click <**HOME**> and then <**NEXT**>.
- To return to the main menu, click <**AWAY**>. This will bring back the display:

```
<OK> TO EXIT
```

You may now review and select any other mode on the installer's menu (by clicking <**NEXT**> or <**BACK**>).

3.3 Keyfob Transmitters

Keyfob transmitters are multi-button wireless units of the CodeSecure™ type. Eight system users carry them on their person to exercise better, quicker and safer control over various system functions. Your control panel must recognize the unique identification code (ID) of each such keyfob in order to respond to commands transmitted by them.

Note: For UL installations where the model MCT-234 keyfob is used, the voice/speaker on the PowerMax shall be enabled.

Before anything else, gather up all keyfob units you intend to enroll, and make sure they all have batteries installed.

Keyfob transmitter enrolling involves the following steps:

A. Perform Steps A through C in Para. 3.2 above, until the display reads:

```
ENROLL WL DEVICE
```

B. Click <**NEXT**>. The display will read:

```
ENROLL KEYFOB
```

C. Click <**OK**>. The display will read:

```
Keyfob No:     _
```

D. Suppose that the Keyfob you are about to enroll is to be designated as Keyfob No. 5. Assuming that memory location No. 5 is free - no keyfob has yet been enrolled to it - click the <**5**> key. The display will change to:

```
Keyfob No:     5
```

The clear space at the far right tells you that the memory location is free.

E. Click <**OK**>. The display will prompt you to initiate a transmission from the chosen keyfob:

```
TRANSMIT NOW
```

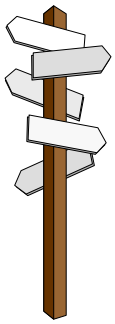
F. Initiate a transmission from the chosen keyfob by pressing any one of its pushbuttons. In response, the "Happy Tune" (- - - ——) will sound and the display will change to:

```
Keyfob No:     5 ■
```

A dark box will appear at the far right, indicating that the chosen Keyfob has been enrolled as Keyfob No. 5.

Note: *If the same keyfob is already enrolled elsewhere, the "Happy Tune" will sound twice in succession.*

G. From this point on, you may continue in several different directions:



- If you wish to enroll another keyfob, select the desired number by:
  - Clicking <**NEXT**> to go up (6→7→8.....)
  - Clicking <**BACK**> to go down (4→3→2.....)
  - Clicking <**HOME**> → <**keyfob #**>.

After that, proceed as in the example above.

- To delete keyfob IDs, refer to Para. 3.4.
- To return to the main menu, click <**AWAY**>. This will bring back the display:

```
<OK> TO EXIT
```

You may now review and select any other mode on the installer's menu (by clicking <**NEXT**> or <**BACK**>).

3.4 Deleting Device and Keyfob IDs

Occupied zones or keyfob memory locations must be cleared (enrolled ID must be deleted) before enrolling a new ID. To delete an existing ID, proceed as follows:

A. Select the desired zone or memory location. If, for example you selected **Zone No. 15**, or **keyfob No. 8,** the display will read:

```
Zone No.      15 ■
```

or, in the other case:

```
Keyfob No.     8 ■
```

B. Click <**OK**>. The display will change to:

```
<OFF> to delete
```

C. Click <**OFF**>. The display will change to:

```
Zone No.      15
```

or, in the other case:

```
Keyfob No.     8
```

Note that the dark box at the far right has disappeared. It is now possible to enroll a new ID. It is also possible to leave the cleared zone or memory location free, and return to the main menu.

4. DEFINING ZONE TYPES

4.1 Preliminary Guidance

This mode allows you to attribute one of 9 zone types to any one of the 29 wireless zones offered by the Power-Max. In addition, it allows you to assign a name to each zone and determine whether the zone will operate as a chime zone while the system is in the disarmed state.
A list of factory defaults is printed on the following page. You may fill out the blank columns even before you start and proceed to program according to your own list.

To reach the DEFINE ZONES mode, proceed as follows:

A. Upon gaining access to the installer menu (see Section 1), the display will read "**1. NEW INSTL CODE**".

B. Click <**NEXT**> twice. The 3rd mode will be selected:

```
3. DEFINE ZONES
```

Should you wish to get an overall view of the entire zone definition process, refer to Figure 3. You may even use the chart as your only guide along the programming process, instead of going through the written step-by-step procedure.

Remember!

1. *A delay zone is also a perimeter zone by definition.*
2. *When arming "AWAY", all interior zones become follower zones during the exit and entry delays.*

Zone types are fully explained in Appendix B at the end of this programming guide.

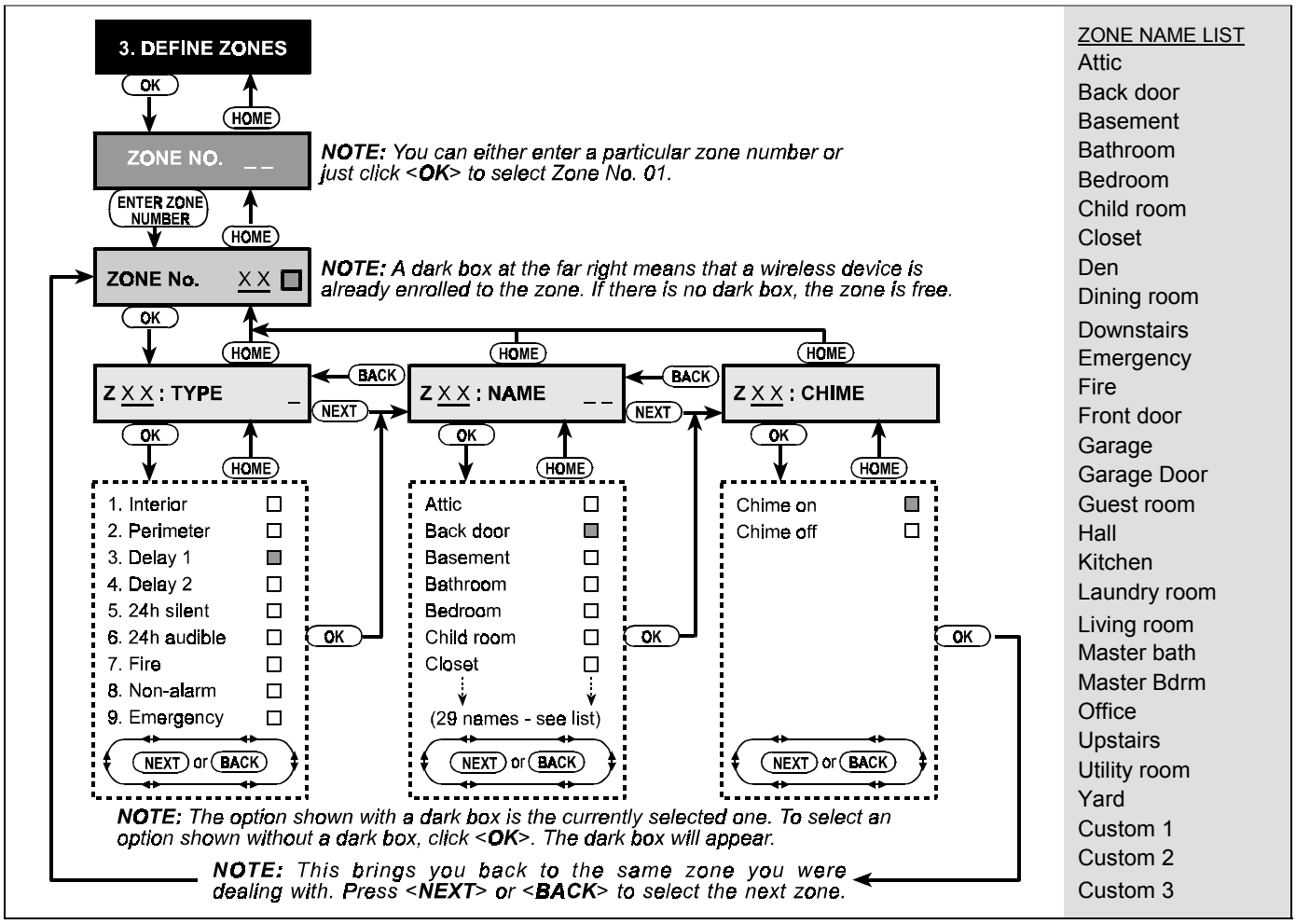


Figure 3. *DEFINE ZONES Flow Chart*

4.2 Zone Definition Procedure

Once "**3. DEFINE ZONES**" is viewed, proceed as follows:

A. Click <**OK**>. The display will read:

```
Zone No.        __
```

B. Suppose that you wish to define (or re-define) Zone No. 7. All you have to do is select the zone by entering <**0**>⇨<**7**>, thereby changing the display to:

```
Zone No. 07      ■
```

If there is no dark box at the far right, the zone has not learned a device ID as yet. If there is a dark box, the zone is already linked to a specific wireless device.

C. Click <**OK**>. The display will read:

```
Z07: TYPE        _
```

D. You can now enter the number of a specific zone definition (see list in Figure 3) and click <**OK**>. If, for example, you enter <**5**>⇨<**OK**>, the display will read:

```
5.24h silent
```

Note: *If you click <**OK**> without entering a number, the display will show the current definition of the selected zone, with a dark box at the far right. You may then review all definitions by clicking <**NEXT**> repeatedly.*

E. To accept the definition on display, click <**OK**>. A dark box will appear at the far right:

```
5.24h silent ■
```

F. Click <**OK**> once more to confirm. The "Happy Tune" will sound, and your selection will be memorized. The display will then change to:

```
Z07:NAME _
```

G. At this point, enter the serial number of the zone name you wish to attach to zone No. 7 from the list of 29 available names (see list in Figure 3).

Note: *If you click <**OK**> without entering a number, the display will show the current name of the selected zone, with a dark box at the far right. You may then review all names by clicking <**NEXT**> repeatedly.*

H. If you enter a number (say 13), the display will read:

```
Front door
```

I. Click <**OK**> to accept this name - a dark box will appear at the far right. Click <**OK**> again to confirm. The "Happy Tune" will sound, your selection will be saved and the display will change to:

```
Z07:CHIME
```

J. Click <**OK**>. You are about to determine whether this zone will be a chime zone or not. The display will read:

```
chime on ■
```

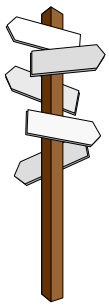
or: chime off

You can toggle the display between CHIME ON and CHIME OFF by clicking <**NEXT**>.

K. Click <**OK**> once if you approve the already selected option - the "Happy Tune" will sound. Alternatively, click <**OK**> twice while the other option is viewed. The "Happy Tune" will sound and the display will revert to:

```
Zone No. 07 ■
```

L. From this point on, you may continue in several different directions:



- Click <**NEXT**> to go up (8→9→10.....)
- Click <**BACK**> to go down (6→5→4.....) **Repeat Steps C through K above for all other zones that you plan to use.**
- To return to the main menu, click <**AWAY**>. This will get you back to:

```
<OK> TO EXIT
```

You may now review and select any other mode on the installer's menu (by clicking <**NEXT**> or <**BACK**>).

DEFAULT AND PROGRAMMED ZONE DEFINITIONS

Zone No.	Zone Type		Zone Name		Chime Y/N? *
	Default	**Programmed**	**Default**	**Programmed**	
1	Delay 1		Front door		
2	Delay 1		Garage		
3	Delay 2		Garage door		
4	Perimeter		Back door		
5	Perimeter		Child room		
6	Interior		Office		
7	Interior		Dining room		
8	Perimeter		Dining room		
9	Perimeter		Kitchen		
10	Perimeter		Living Room		
11	Interior		Living Room		
12	Interior		Bedroom		
13	Perimeter		Bedroom		
14	Perimeter		Guest Room		
15	Interior		Master Bedroom		
16	Perimeter		Master Bedroom		
17	Perimeter		Laundry room		
18	Perimeter		Master Bathroom		
19	Perimeter		Basement		
20	Fire		Fire		
21	Fire		Fire		
22	Emergency		Emergency		
23	Emergency		Emergency		
24	24 h / silent		Basement		
25	24 h / silent		Office		
26	24 h / audible		Attic		
27	24 h / audible		Den		
28	non-alarm		Yard		
29	non-alarm		Hall		
30	non-alarm		Utility room		

**** Note:*** *All zones are non-chime by default. Enter your own choice in the last column and program accordingly.*

5. DEFINING CONTROL PANEL PARAMETERS

5.1 Preliminary Guidance

A. Mode description

This mode allows you to customize the control panel and adapt its characteristics and behavior to the requirements of the particular user.

Should you wish to obtain an overall view of the entire programming process, refer to the programming chart in Figure 4. You may even use the chart as your only guide along the programming process, instead of going through the written step-by-step procedure.

B. Gaining access to the "Define Panel" Memory Locations

To reach the DEFINE PANEL mode, proceed as follows:

- Upon gaining access to the installer menu (see Section 1), the display will read "**1. NEW INSTL CODE**".
- Click <**NEXT**> until the 4th mode is displayed:

```
4. DEFINE PANEL
```

- Click <**OK**>. The first memory location will be selected and displayed:

```
01:ENTRY DELAY 1
```

- Click <**NEXT**> or <**BACK**> until you reach the memory location you wish to access (see rectangles **01** to **26** in Figure 4).

C. Programming Method

The "multiple choice" programming method is applied here. Once a memory location is selected, its number and name are displayed as shown in the following example:

```
03:EXIT DELAY
```

When you click <**OK**>, the currently saved option will be displayed with a **dark selection box** at the far right of the display:

```
exit delay 45s ■
```

If you approve of this option, click <**OK**>. The "Happy Tune" will sound and the display will revert to the number and name of the presently selected memory location.

If you do not approve, review the other options by clicking <**NEXT**> or <**BACK**> repeatedly. Options that are not saved will have a clear space at the far right, as shown:

```
exit delay 90s
```

To select an option, click <**OK**>. A dark box will appear at the far right of the display.

Clicking <**OK**> once more will cause your selection to be saved - the "Happy tune" will sound and the number and name of the presently selected memory location will be re-displayed. Click <**NEXT**> or <**BACK**> to select another memory location.

5.2 Entry Delays

Two different entry delays allow the user to enter the protected site (while the system is in the armed state) via 2 specific doors and routes without causing an alarm.

Following entry, the user must disarm the control panel before the entry delay expires. Slow-rate warning beeps will start sounding once the door is opened. This will continue until the last 10 seconds of the delay, throughout which the beeping rate will increase.

Locations No. 1 (entry delay 1) and 2 (entry delay 2) allow you to program the length of these delays. Available options for each delay are: **00**, **15**, **30**, **45**, **60**, **180** and **240** seconds.

In UL installations, these delays must be 45 s max.

Upon selecting Location No. 01, the display will read:

```
01:ENTRY DELAY 1
```

Select the desired option as outlined in Para. 5.1 C above. When done, Click <**NEXT**> to select Location No. 2. Continue the same way as in location 1. When done, Click <**NEXT**> to select Location 3.

5.3 Exit Delay

An exit delay allows the user to arm the system and leave the protected site via specific routes and doors without causing an alarm. Slow-rate warning beeps will start sounding once the arming command has been given. This will continue until the last 10 seconds of the delay, throughout which the beeping rate will increase.

Location No. 3 allows you to program the length of the exit delay. Available options are: **30**, **60**, **90**, **120**, **180** and **240** seconds.

Upon selecting Location 03, the display will read:

```
03:EXIT DELAY
```

Select the desired option as outlined in Para. 5.1 C above.

5.4 Bell Time

Here you select the length of time the bell (or siren) is allowed to function upon alarm. The bell time starts upon activation of the siren. Once the bell time expires, the siren is automatically shut down.

Available options: **01**, **04**, **08**, **10**, **15** and **20** minutes.

In UL installations, set bell time to 4 minutes minimum.

Upon selecting Location 04, the display will change to:

```
04:BELL TIME
```

Select the desired option as outlined in Para. 5.1 C above.

5.5 Abort Time

Here you select the length of time allowed by the system to abort an alarm. The PowerMax is programmed to provide an "abort interval" that starts upon detection of an alarm. During this interval, the buzzer sounds a warning but the siren remains inactive and the alarm is not reported. If the user disarms the system within the allowed abort interval, the alarm will be aborted.

Available options: **00**, **15**, **30**, **45**, **60**, **180**, **240** seconds.

Upon selecting Location 05, the display will change to:

```
05:ABORT TIME
```

Select the desired option as outlined in Para. 5.1 C above.

5.6 Alarm Cancel Time

Here you determine the "cancel alarm" period that starts upon reporting an alarm to the central station. If the user disarms the system within that time period, a "cancel alarm" message will be sent to the central station.

The options are: **1**, **5, 15, 60 minutes**, **4 hours** and also **cancel inactive**.

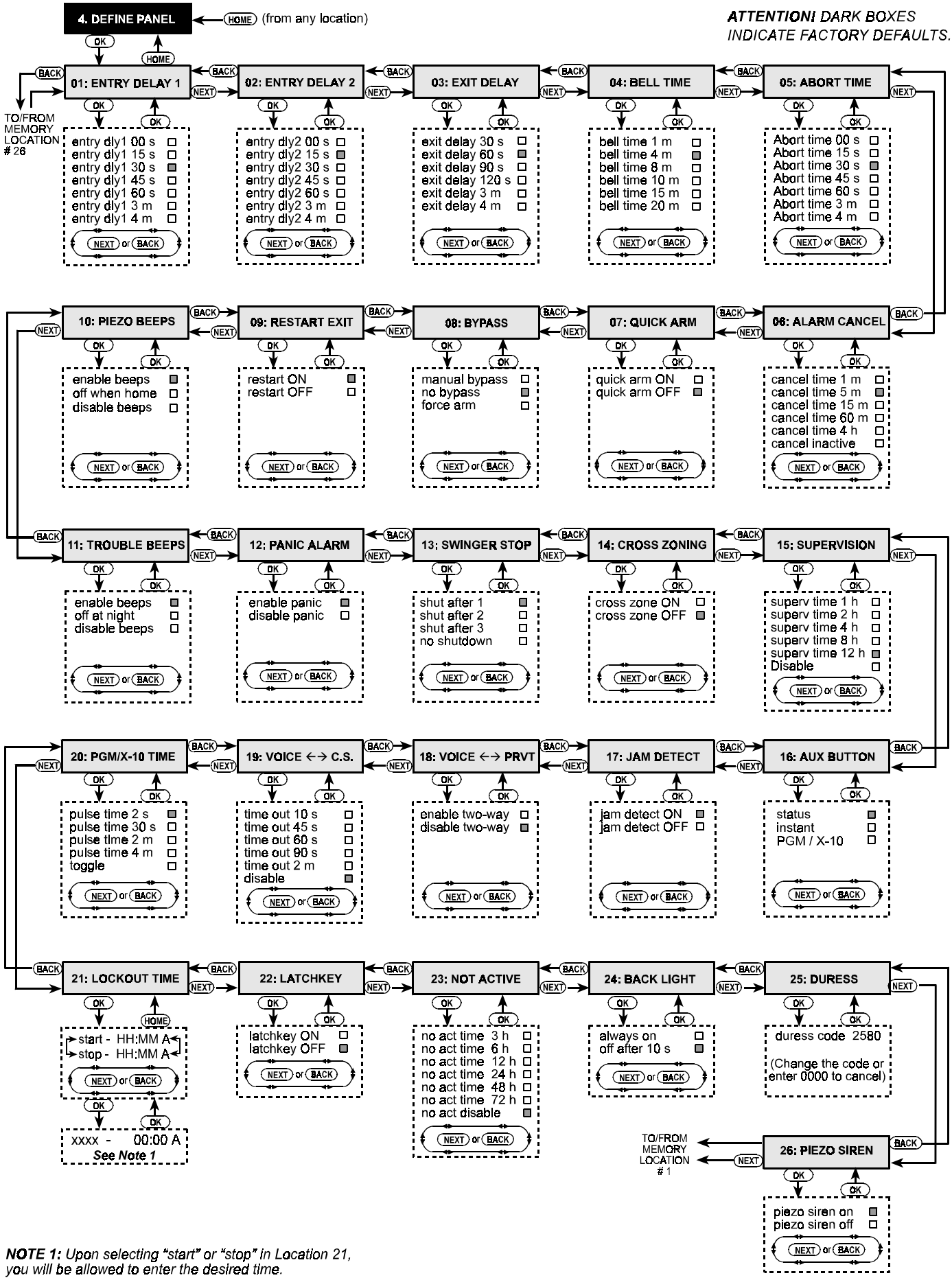


Figure 4. *DEFINE PANEL Flow Chart*

Upon selecting Location 06, the display will change to:

```
06:ALARM CANCEL
```

Select the desired option as outlined in Para. 5.1 C above.

5.7 Quick Arming

Here you determine whether the user will be allowed to perform quick arming or not. Once quick arming is permitted, the control panel does not request a user code before it actually arms the system.

The two options are: **quick arm on** and **quick arm off.**

Upon selecting Location 07, the display will change to:

```
07:QUICK ARM
```

Select the desired option as outlined in Para. 5.1 C above.

5.8 Bypass

Here you permit either manual bypassing of individual zones (through the USER SETTINGS menu), or allow the system to "force arm" (perform automatic bypassing) of zones that are open throughout the exit delay. If a zone is open and forced arming is not permitted, “NOT READY” will be displayed and the system will not arm (the “Sad Melody” will sound). If "no bypass" is selected, neither manual bypassing nor force arming will be allowed.

Options: **manual bypass**, **force arm** and **no bypass**.

In UL installations, "force arm" must not be selected.

Upon selecting Location 08, the display will change to:

```
08:BYPASS
```

Select the desired option as outlined in Para. 5.1 C above.

5.9 Restart Exit

Here you determine whether the exit delay will restart if the exit / entry door is reopened before the exit delay expires. Restarting the exit delay is helpful if the user re-enters immediately after going out to retrieve an item that he left behind.

The two options are: **restart ON** and **restart OFF**.

In UL installations, "restart OFF" must be selected.

Upon selecting Location 09, the display will change to:

```
09:RESTART EXIT
```

Select the desired option as outlined in Para. 5.1 C above.

5.10 Piezo Beeps

Here you determine whether warning beeps will sound or will be muted throughout the exit and entry delays. An additional option is to mute the warning beeps only when the system is armed “HOME”.

Three options are available: **enable beeps**, **off when home** and **disable beeps**.

Upon selecting Location 10, the display will change to:

```
10:PIEZO BEEPS
```

Select the desired option as outlined in Para. 5.1 C above.

5.11 Trouble Beeps

Under trouble conditions, the sounder emits a series of 3 short beeps once per minute. Here you determine whether this special beeping sequence will be active, inactive, or just inactive at night (the range of “night” hours is defined in the factory).

The 3 options are: **enable beeps**, **off at night (8 PM through 7 AM)** and **disable beeps**.

Upon selecting Location 11, the display will change to:

```
11:TROUBLE BEEPS
```

Select the desired option as outlined in Para. 5.1 C above.

5.12 Panic Alarm

Here you determine whether the user will be allowed to initiate a panic alarm by simultaneous pressing of the two panic buttons (on the keypad) or away + home (on a keyfob transmitter).

The two options are: **enable panic** and **disable panic**.

Upon selecting Location 12, the display will change to:

```
12:PANIC ALARM
```

Select the desired option as outlined in Para. 5.1 C above.

5.13 Swinger Stop

Here you determine how many times each zone is allowed to initiate an alarm within a single arming period. If the number of alarms from a specific zone exceeds the number programmed in this location, the control panel will automatically bypass the zone to prevent recurrent siren noise and nuisance reporting to the central station. The zone will be reactivated upon disarming, or 24 hours after having been bypassed (if the system remains armed).

The available options are: **shut after 1**, **shut after 2**, **shut after 3** and **no shutdown**.

In UL installations, No Shutdown must be selected.

Upon selecting Location 13, the display will change to:

```
13:SWINGER STOP
```

Select the desired option as outlined in Para. 5.1 C above.

5.14 Cross Zoning

Here you determine whether cross zoning will be active or inactive. Cross zoning is a method used to counteract false alarms - an alarm will not be initiated unless two adjacent zones are violated within a 30-second time limit. This feature is active only when arming AWAY and only with zone couples from zone No. 20 up (20 and 21, 22 and 23, etc.). You may use any one of these zone couples to create a “cross-zoned” area.

Note: *If one of two crossed zones is bypassed (see Para. 5.8), the remaining zone will function independently.*

The options are: **cross zone ON** and **cross zone OFF**.

Per UL, cross zoning is not recommended on Entry/ Exit zones.

Upon selecting Location 14, the display will change to:

```
14:CROSS ZONING
```

Select the desired option as outlined in Para. 5.1 C above.

5.15 Supervision Interval

Here you determine the time limit for reception of supervision reports from supervised wireless devices. If any device does not report at least once within the selected time limit, an “INACTIVITY” alert will be initiated.

The options are: **1**, **2**, **4, 8, 12 hours** and **disable.**

In UL installations, the interval must not exceed 4 h and shall not be disabled.

Upon selecting Location 15, the display will change to:

```
15:SUPERVISION
```

Select the desired option as outlined in Para. 5.1 C above.

5.16 AUX Button

Here you select the function of the AUX button on keyfob transmitters. Three options are offered:

Status: Pressing the AUX button will cause the control panel's voice module to announce the system status.

Instant: Pressing the AUX button while the exit delay is in progress will cause the system to arm "instant", (the entry delay is canceled).

PGM / X-10: Pressing the AUX button will activate the PGM output or X-10 units (see further programming under "DEFINE OUTPUTS").

Upon selecting Location 16, the display will change to:

```
16:AUX BUTTON
```

Select the desired option as outlined in Para. 5.1 C above.

5.17 Jamming Detection

Here you determine whether jamming (interfering transmissions) on the radio channel used by the system will be detected and reported or not. The options are: **jam detect ON** and **jam detect OFF**.

If the jam detect ON option is selected, the system will not allow arming under jamming conditions.

Upon selecting Location 17, the display will change to:

```
17:JAM DETECT
```

Select the desired option as outlined in Para. 5.1 C above.

5.18 Two-Way Voice - Private Phones

Here you determine whether two-way voice communication with private telephones will be allowed or not.

The two options are: **enable 2-way** and **disable 2-way**.

In UL installations, this function must be disabled.

Upon selecting Location 18, the display will change to:

```
18:VOICE ←→ PRVT
```

Select the desired option as outlined in Para. 5.1 C above.

5.19 Two-Way Voice - Central Stations

Here you select the timeout for two-way voice communication with Central Stations.

The options are: **10, 45, 60, 90 seconds**, **2 minutes** and **disable** (no two-way voice communication).

In UL installations, this function must be disabled.

Upon selecting Location 19, the display will change to:

```
19:VOICE ←→ C.S.
```

Select the desired option as outlined in Para. 5.1 C above.

5.20 PGM / X-10 Time

Here you determine the pulse duration (length of activation time) for the PGM output and the X-10 units.

The available options are: **2 s, 30 s, 2 min**, **4 min and toggle**. "Toggle" means that one command will activate the output and the following command will deactivate it.

Upon selecting Location 20, the display will change to:

```
20:PGM/X-10 TIME
```

Select the desired option as outlined in Para. 5.1 C above.

In UL installations, this function shall not be used.

5.21 Lighting Lockout Time

This memory location is different from the others, because here you do not select one of several options. Here you set daytime limits between which lighting devices **controlled by sensors** will be off, even when the associated sensors are triggered. Sensors (zones) can be programmed to control lighting devices via the X-10 and PGM outputs - see Section 7 for details.

In UL installations, this function shall not be used.

Upon selecting Location 21, the display will change to:

```
21:LOCKOUT TIME
```

A. Click <**OK**>. The display will read:

```
start-    HH:MM A
```

B. Click <**OK**>. The display will change to:

```
start-    00:00 A
```

C. Enter the time at which you wish the lockout state to begin (usually at dawn).

Note: *AM and PM are selected by clicking "✶" and "#", respectively.*

Once the viewed time is correct, regardless of the cursor position, click <**OK**> twice. The display will change to:

```
stop-     HH:MM P
```

D. Click <**OK**>. The display will change to:

```
stop-     00:00 P
```

E. Enter the time at which you wish the lockout state to end (usually at dusk). With the correct time on display, regardless of the cursor position, click <**OK**> twice. The display will revert to "**stop - HH:MM P**".

F. Click <**HOME**> to return to "**21: LOCKOUT TIME**".

5.22 Latchkey Arming

Here you determine whether the system can be armed in the latchkey mode. If the system is armed this way, a "latchkey" message will be sent to specific telephones upon disarming by a "latchkey user" (users 5 through 8 or keyfob transmitters 5 through 8). This mode is useful when parents at work want to be informed of a child's return from school.

The options are: **Latchkey ON** and **Latchkey OFF**.

Upon selecting Location 22, the display will change to:

```
22:LATCHKEY
```

Select the desired option as outlined in Para. 5.1 C above.

In UL installations, this function shall not be used.

5.23 "Not Active" Time

Here you determine the time limit for reception of signals from sensors used to monitor the activity of sick, elderly or disabled people. If no device detects and reports movement at least once within the defined time limit, a "not-active" alert will be initiated.

The options are: **3, 6, 12, 24, 48, 72 hours** and **canceled.**

Upon selecting Location 23, the display will change to:

```
23:NOT ACTIVE
```

Select the desired option as outlined in Para. 5.1 C above.

5.24 Back Lighting

Here you determine whether the back lighting of the keypad will remain on at all times or will come on when a key is pressed, then go off within 10 seconds if no further keystrokes are sensed.

The two options are: **always on** and **off after 10 s**.

In UL installations, "off after 10 s" must be selected to save battery power.

Upon selecting Location 24, the display will change to:

```
24:BACK LIGHT
```

Select the desired option as outlined in Para. 5.1 C above.

5.25 Duress Alarm (ambush)

A duress message can be sent to the central station if the user is forced to disarm the system under violence or menace. To initiate a duress message, the user must disarm the system with the duress code (**2580** by default). Here you can change the code digits or enter "**0000**" to deactivate the duress feature. **The system does not allow the user to program the duress code saved in this memory location as a regular user code.**

Note: *It is not recommended to use **1234** or 1 number off.*

Upon selecting Location 25, the display will change to:

```
25:DURESS
```

Click <**OK**>. The display will show "**duress code 2580"**, with the cursor on the first digit. Press <**OK**> to accept this or key in another code and press <**HOME**> to exit.

5.26 Piezo Siren

Here you determine whether the piezo siren built into the control cabinet will sound or not upon alarm. Ask the user whether he prefers it to sound or to be silent.

The two options are: **piezo siren on** and **piezo siren off**.

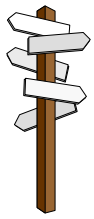
In UL installations, the piezo siren must be ON.

Upon selecting Location 26, the display will change to:

```
26:PIEZO SIREN
```

Select the desired option as outlined in Para. 5.1 C above.

Having thus completed a full cycle of all 26 panel attributes, you may now continue by programming the communication parameters (see Section 6), or you may select any other item on the installer's menu (see opposite column).



If at this point you wish to return to the installer's menu, click <**AWAY**>. This will get you back to:

```
<OK> TO EXIT
```

You may now review and select any other mode on the installer's menu (by clicking <**NEXT**> or <**BACK**>).

6. DEFINING COMMUNICATION PARAMETERS

6.1 Preliminary Guidance

A. Mode description

This mode allows you to adapt the telephone communication parameters to the local requirements.

Note: For all UL-certified systems, it is up to the installer to completely verify the compatibility between the DACT format and the receivers.

Compatible central station receivers:
– Osborne-Hoffman model 2000
– Ademco Model 685
– FBII Model CP220
– Radionics Model D6500
– Sur-Gard Model SG-MLR2-DG
– Silent Knight Model 9500

There are two kinds of memory locations in this sub-mode, each of which requires a different programming method:

- **Multiple Choice Locations:** these memory locations allow you to choose one of several options (see C below for programming procedure)
- **Numerical Data Locations:** these memory locations accept a sequence of digits (phone number, account number etc. - see D below for programming procedure).

Should you wish to obtain an overall view of the entire process, refer to the programming chart in Figure 5. You may even use the chart as your only guide along the programming process, instead of going through the written step-by-step procedure.

B. Accessing the "Define Comm" Memory Locations

- Upon gaining access to the installer menu (see Section 1), the display will read "**1. NEW INSTL CODE**".
- Click <**NEXT**> until the 5th mode is displayed:

```
5. DEFINE COMM.
```

- Click <**OK**>. The first memory location will be selected and displayed:

```
01: DIAL METHOD
```

- Click <**NEXT**> or <**BACK**> until you reach the memory location you wish to access (see rectangles **01** to **23** in Figure 5).

C. Programming Multiple Choice Locations

When a multiple choice location is selected, its number and name will be displayed as shown in this example:

```
07:REPORT FORMAT
```

When you click <**OK**>, the currently saved option will be displayed with a **dark selection box** at the far right:

```
SIA                ■
```

If you approve of this option, click <**OK**>. The "Happy Tune" will sound and the number and name of the present memory location will be re-displayed.

If you do not approve, review the other options by clicking <**NEXT**> or <**BACK**> repeatedly. Options that are not saved will have a clear space at the far right, as shown:

```
contact ID
```

To select an option that is not the currently saved one, click <**OK**>. A dark box will appear at the far right. Clicking <**OK**> once more will cause your selection to be saved - the "Happy tune" will sound and the number and name of the present memory location will be re-displayed.

D. Programming Numerical Data Locations

When a numeric data location is selected, its number and name will be displayed as shown in this example:

```
03:1ST CNTR TEL
```

When you click <**OK**>, the currently saved number will be displayed, with a blinking cursor under the leftmost digit (if there is no number programmed, the display will be blank).

```
0738492 04
```

If you approve of the saved number, click <**OK**>. The "Happy Tune" will sound and the number as well as the name of the present memory location will be re-displayed.

If you do not approve, enter the new number (up to 16 digits). To erase undesired digits to the right of the cursor, click <**OFF**>.

With the correct number on display and the blinking cursor to the right of the last digit, click <**OK**>. The cursor will disappear.

Click <**OK**> once more. The new number will be saved - the "Happy tune" will sound and the number + name of the present memory location will be re-displayed.

IMPORTANT: *In telephone / pager number locations and account number locations, you may be required to enter hexadecimal digits. In telephone number locations, these digits are used as codes to control the dialer:*

Hex. Digit	*Keying Sequence*	*Code Significance*
A	**<#> ⇒ <0>**	*Dialer waits 5 seconds or waits for dial tone, whichever comes first and then dials.*
B	**<#> ⇒ <1>**	*Inserts an asterisk (✳)*
C	**<#> ⇒ <2>**	*Inserts a pound sign (#)*
D	**<#> ⇒ <3>**	*Dialer waits 5 seconds for dial tone and goes on hook if none is received.*
E	**<#> ⇒ <4>**	*Not applicable in phone numbers*
F	**<#> ⇒ <5>**	*Not applicable in phone numbers*

When entering a series of digits, the following keys are useful:

<Numeric keypad> - to enter the number

NEXT - moves the cursor from left to right

BACK - moves the cursor from right to left

OFF - deletes everything after the cursor (to the right).

6.2 Dialing Method

Here you determine the dialing method used by the automatic dialer built into the PowerMax control panel.

The options are: **Pulse** and **DTMF**

Upon selecting Location 01, the display will read:

```
01:DIAL METHOD
```

Select the desired option as outlined in Para. 6.1 C above.

6.3 Phone Line Test Interval

Here you determine the time interval between consecutive test messages sent to the central station. The control panel does it at regular intervals to verify proper communication. However, be advised that the first test will take place 12 hours after you exit the installer mode.

The options are: **test every 1**, **5**, **7**, **30 days** and **test off**.

Upon selecting Location 02, the display will change to:

```
02:LINE TEST
```

Select the desired option as outlined in Para. 6.1 C above.

6.4 First Central Station Telephone

Here you program the telephone number of the first central station to which the PowerMax will report the event groups defined in memory location 09.

Upon selecting Location 03, the display will change to:

```
03:1ST CNTR TEL
```

Enter the first central station's telephone number (16 digits max.) as outlined in Para. 6.1 D above.

6.5 First Account No.

Here you enter the account number that will identify your specific alarm control system to the 1st central station. The number consists of 4 hexadecimal digits.

Upon selecting Location 04, the display will change to:

```
04:1ST ACCOUNT #
```

Enter the account no. as outlined in Para. 6.1 D above.

6.6 Second Central Station Telephone

Here you program the telephone number of the second central station to which the PowerMax will report the event groups defined in memory location 09.

Upon selecting Location 05, the display will change to:

```
05:2ND CNTR TEL
```

Enter the second central station's telephone number as outlined in Para. 6.1 D above.

6.7 Second Account No.

Here you enter the account number that will identify your specific alarm control system to the 2nd central station. The account number consists of 4 hexadecimal digits.

Upon selecting Location 06, the display will change to:

```
06:2ND ACCOUNT #
```

Enter the account no. as outlined in Para. 6.1 D above.

6.8 Report Format

Here you select the reporting format used by the control panel to report events to central stations.

The options are: ■ **Contact-ID** ■ **SIA** ■ **4/2 1900/1400** ■ **4/2 1800/2300** (for code lists - see Appendix A).

Upon selecting Location 07, the display will change to:

```
07:REPORT FORMAT
```

Select the desired option as outlined in Para. 6.1 C above.

6.9 4/2 Pulse Rate

Here you select the pulse rate at which data will be sent to central stations if any one of the 4/2 formats has been selected in Location 07.

The options are: **10**, **20**, **33** and **40** pps

Upon selecting Location 08, the display will change to:

```
08:4/2 PLS RATE
```

Select the desired option as outlined in Para. 6.1 C above.

6.10 Reporting to Central Stations

Here you determine which types of events will be reported to central stations. Due to lack of space in the display, abbreviations are used: alarm is "**alrm**", alert is "**alrt**" and open/close is "**o/c**". The asterisk (✳) is a separator between events reported to **central station 1** and events reported to **central station 2**.

Messages are divided by type into three groups:

GROUP	EVENTS REPORTED
Alarms	Fire, Burglary, Panic, Tamper
Open/Close	Arming AWAY, Arming HOME, Disarming
Alerts	No-activity, Emergency, Latchkey

Group 1 has the highest priority and group 3 has the lowest priority.

The selectable options are shown in the following table:

Plan name	Sent to center 1	Sent to center 2
all ✳ backup	All events	} All if center 1 does not respond
all –o/c ✳ backup	All but open/close	
all ✳ all	All events	All events
all –o/c ✳ all –o/c	All but open/close	All but open/close
all –o/c ✳ o/c	All but open/close	open/close only
all (–alrt) ✳ alrt	All but alerts	Alerts
alrm ✳ all (–alrm)	Alarms	All but alarms
disable	Nothing	Nothing

Note: *"**All**" means that all 3 groups are reported and also trouble messages - sensor / system low battery, sensor inactivity, power failure, jamming and communication failure.*

Upon selecting Location 09, the display will change to:

```
09 : REPORT→CNTR
```

Select the desired option as outlined in Para. 6.1 C above.

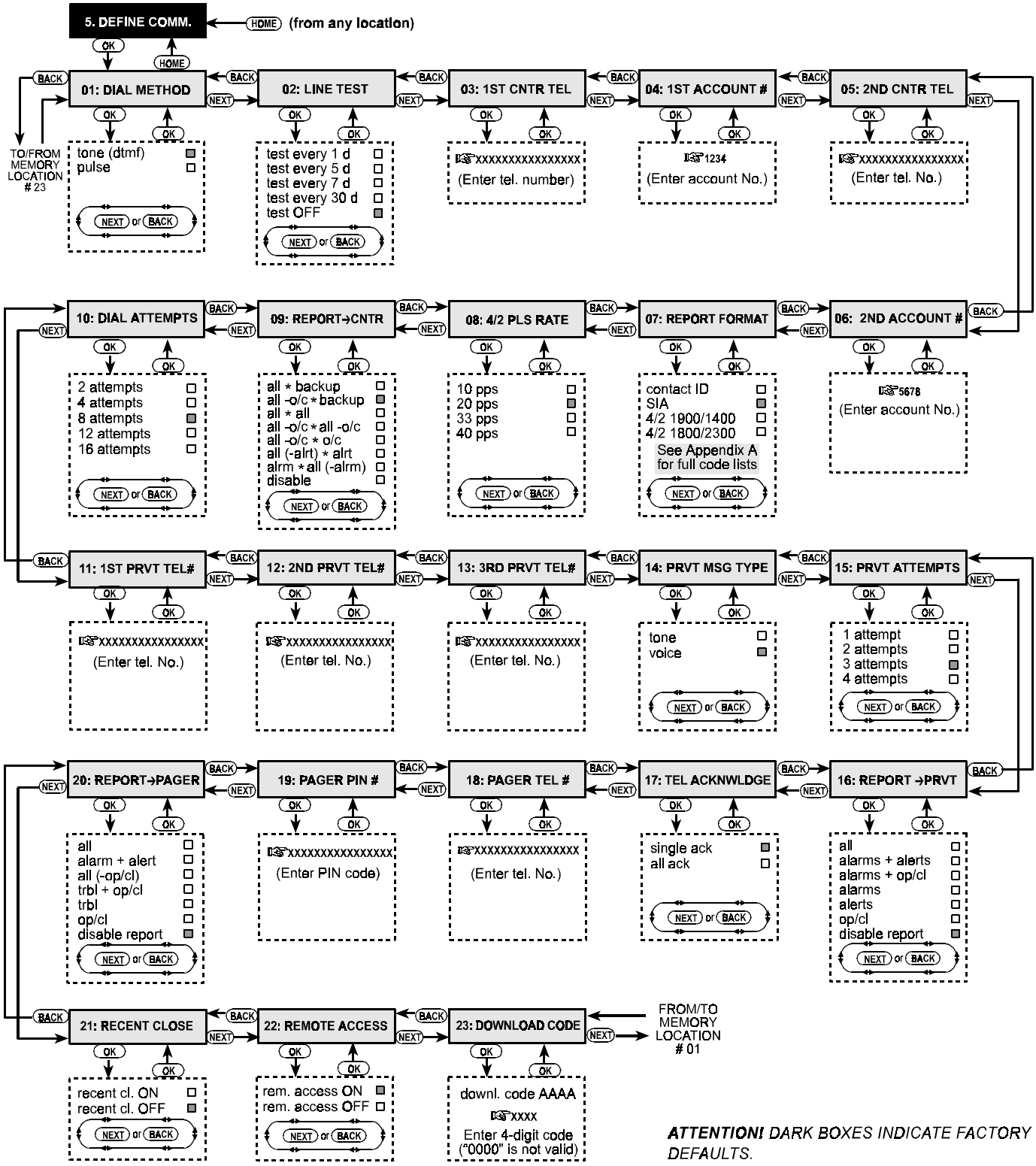


Figure 5. *DEFINE COMM Flow Chart*

6.11 Dialing Attempts

Here you determine how many times the communicator will dial the central station's number.

The options are: **2**, **4**, **8**, **12**, and **16** attempts.

Attention! *A maximum of 2 dialing attempts is permitted by the Australian Telecommunication Authority.*

In UL installations, dialing attempts should be set to 8.

Upon selecting Location 10, the display will change to:

```
10:DIAL ATTEMPTS
```

Select the desired option as outlined in Para. 6.1 C above.

6.12 First Private Telephone No.

Here you program the telephone number of the first private subscriber to which the system will report the event groups defined in Location 16.

Upon selecting Location 11, the display will change to:

```
11:1ST PRVT TEL#
```

Enter the first private subscriber's telephone number as outlined in Para. 6.1 D above.

6.13 Second Private Telephone No.

Here you program the telephone number of the second private subscriber to which the system will report the event groups defined in Location 16.

Upon selecting Location 12, the display will change to:

```
12:2ND PRVT TEL#
```

Enter the second private subscriber's telephone number as outlined in Para. 6.1 D above.

6.14 Third Private Telephone No.

Here is the place to program the telephone number of the third private subscriber to which the system will report the event groups defined in Location 16.

Upon selecting Location 13, the display will change to:

```
13:3RD PRVT TEL#
```

Enter the third private subscriber's telephone number as outlined in Para. 6.1 D above.

6.15 Telephone Message Type

Here you determine whether reporting to private telephone subscribers will be carried out by tone signals or by voice. The options are: **tone** and **voice**.

Upon selecting Location 14, the display will change to:

```
14:TEL. MSG TYPE
```

Select the desired option as outlined in Para. 6.1 C above.

6.16 Private Tel. Dialing Attempts

Here you determine how many times the communicator will dial the called party's number (private telephone).

The options are: **1**, **2**, **3** and **4** attempts.

Attention! *A maximum of 2 dialing attempts is permitted by the Australian Telecommunication Authority.*

Upon selecting Location 15, the display will change to:

```
15:PRVT ATTEMPTS
```

Select the desired option as outlined in Para. 6.1 C above.

6.17 Reporting to Private Telephones

Here you determine which event groups will be reported to private telephone subscribers.

The options are: ■ **all** ■ **alarms + alerts** ■ **alarms + op/cl** ■ **alarms** ■ **alerts** ■ **op/cl** ■ **disable report.**

Note: *"**all**" does not include trouble messages, which are not reported to private telephones.*

Upon selecting Location 16, the display will change to:

```
16:REPORT→TEL.
```

Select the desired option as outlined in Para. 6.1 C above.

6.18 Telephone Acknowledge

Here you determine whether the system will use the single acknowledge or the all acknowledge mode when reporting to private telephones.

Note: *In the single acknowledge mode, receiving an acknowledge signal from a single telephone is sufficient to consider the current event closed and call off the communication session. The remaining telephones serve for backup purposes only.*

In the all acknowledge mode, an acknowledge signal must be received from each telephone before the current event is considered reported.

The options are: **single ack** and **all ack**.

Upon selecting Location 17, the display will change to:

```
17:TELEPHONE ACK
```

Select the desired option as outlined in Para. 6.1 C above.

6.19 Pager Telephone Number

Here you program the telephone number of the pager to which the system will report (if any).

Upon selecting Location 18, the display will change to:

```
18:PAGER TEL#
```

Enter the pager's phone number as in Para. 6.1 D above.

6.20 Pager's PIN Number

Here you enter the pager's PIN code - a digital sequence which is the pager's address. The paging company's computer needs this input for routing messages to the specific pager. The PIN sequence precedes any digital message that the PowerMax sends to the pager to report an event. It may include digits, pauses and special characters (✶ or #). Call the paging company to find out what the pager's PIN code should consist of.

Upon selecting Location 19, the display will change to:

```
19:PAGER PIN #
```

Important! *In this location, special characters can be entered as shown below:*

To Insert	*Keying Sequence*	*Character Displayed*
✶	**<#>** ⇒ **<1>**	**B**
#	**<#>** ⇒ **<2>**	**C**
5 sec pause	**<#>** ⇒ **<3>**	**D**

Enter the pager's PIN number (up to 16 digits, including special characters, depending on pager system protocol).

6.21 Reporting to a Pager

Here you determine which event groups will be reported to the pager.

The options are: ■ **all** ■ **alarms + alerts** ■ **all (- op/cl)** ■ **trbl + op/cl** ■ **trbl** ■ **op/cl** ■ **disable report**

Upon selecting Location 20, the display will change to:

```
20:REPORT→PAGER
```

Select the desired option as outlined in Para. 6.1 C above.

6.22 Recent Closure

Here you enable or disable the "recent closing" report, that is sent to the central station if an alarm occurs within 2 minutes from the expiry of the exit delay.

The options are: **recent close ON** and **recent close OFF**

Upon selecting Location 21, the display will change to:

```
21:RECENT CLOSE
```

Select the desired option as outlined in Para. 6.1 C above.

6.23 Remote Access

Here you give or deny permission to access the system and exercise control from a remote telephone.

The options are: **rem. access ON** and **rem. access OFF**

Upon selecting Location 22, the display will change to:

```
22:REMOTE ACCESS
```

Select the desired option as outlined in Para. 6.1 C above.

6.24 Downloader Code

Here you determine the 4-digit code used as a password for downloading data into the PowerMax memory.

Upon selecting Location 23, the display will change to:

```
23:DOWNLOAD CODE
```

Enter the 4-digit code as outlined in Para. 6.1 D above.

Attention! Do not use "0000" - this code is invalid.

Having thus completed a full cycle of all 23 communication parameters, you may now continue by defining output parameters (see Section 7).

To return to the installer's menu, click <**AWAY**>. This will get you back to:

```
<OK> TO EXIT
```

You may now review and select any other mode on the installer's menu (by clicking <**NEXT**> or <**BACK**>).

7. DEFINING OUTPUT PARAMETERS

7.1 Preliminary Guidance

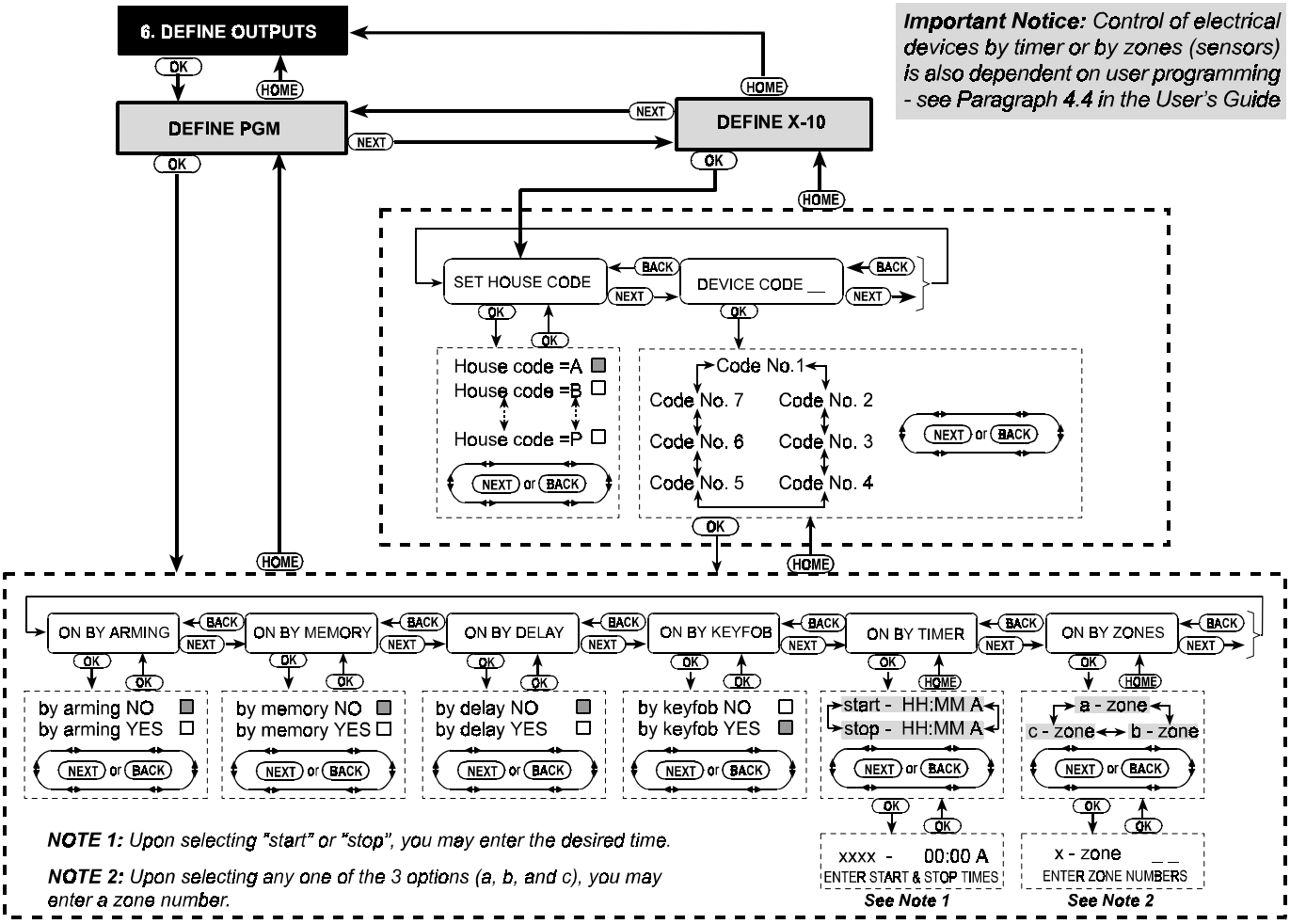
A. Mode description

Here you select events and conditions under which the PGM (programmable) output and X-10 devices will function.

There are two kinds of memory locations in this sub-mode, each of which requires a different programming method:

- **Multiple Choice Locations:** these memory locations allow you to choose one of several options (see C below for programming method)
- **Numerical Data Locations:** these memory locations accept digital data (a code, a time limit etc. - see D below for programming method).

Should you wish to get an overall view of the entire process, refer to the programming chart in Figure 6. You may even use the chart as your only guide along the programming process, instead of going through the written step-by-step procedure.



Important Notice: *Control of electrical devices by timer or by zones (sensors) is also dependent on user programming - see Paragraph 4.4 in the User's Guide*

Figure 6. *DEFINE OUTPUTS Flow Chart*

B. Gaining Access to the "Define Outputs" Mode

- Upon gaining access to the installer menu (see Section 1), the display will read "**1. NEW INSTL CODE**".
- Click <**NEXT**> until the 6th mode is displayed:

```
6.DEFINE OUTPUTS
```

- Click <**OK**>. The display will show the first sub-mode:

```
DEFINE PGM
```

There are two sub-modes: **DEFINE PGM** and **DEFINE X-10.** You can toggle between them by clicking <**NEXT**>.

C. Programming Multiple-Choice Locations

If a multiple choice location is selected, its name will be displayed as shown in this example:

```
SET HOUSE CODE
```

A few options are available, but once you click <**OK**>, the currently saved option will be displayed with a **dark selection box** at the far right:

```
house code = A ■
```

If you approve of this option, click <**OK**>. The "Happy Tune" will sound (- - - ——) and the display will revert to its previous state ("**SET HOUSE CODE**" in this case).

If you do not approve, review the other options by clicking <**NEXT**> repeatedly. Options that are not saved will have a clear space at the far right, as shown:

```
house code = B
```

To select an option that is not currently saved, click <**OK**>. A dark box will appear at the far right. Clicking <**OK**> once more will cause your selection to be saved - the "Happy tune" will sound and the display will revert to its previous state ("**SET HOUSE CODE**" in this case).

D. Programming Numerical Data Locations

In case of a numerical data location, refer to the detailed procedure given in the following paragraphs.

7.2 PGM Output Control

Here you determine which factors will activate the PGM output. The available options are:

- **on by arming**: ON upon arming and OFF upon disarming.
- **on by memory**: pulsating ON/OFF upon registration of an alarm in the memory; steadily ON after disarming and OFF upon clearing the memory indication.
- **on by delay**: ON during the exit and entry delays.
- **on by keyfob**: ON by pressing the AUX (fourth) button of a keyfob transmitter - provided that "**PGM/X-10**" is selected in location 16 of the "Define Panel" menu. The duration of activation depends on the option selected in location 20 of the "Define Panel" menu.
- **on by timer**: ON and OFF at specific preset times.
- **on by zones**: ON by triggering a sensor in any one of 3 selected zones, irrespective of arming / disarming. The duration of activation depends on the option selected in location 20 of the "Define Panel" menu.

Note: *The PGM output may be programmed for activation by any combination of factors.*

A. Upon clicking <**OK**> while "**6. DEFINE OUTPUTS**" is shown, the display will change to:

```
DEFINE PGM
```

B. Click <**OK**>. The display will change into:

```
ON BY ARMING
```

C. Select the desired option (YES or NO) as outlined in Para. 7.1 C above. When done, click <**NEXT**> to select the next item on the menu.

D. Go through the next 3 menu items (ON BY MEMORY, ON BY DELAY and ON BY KEYFOB), selecting the desired option for each. After that, clicking <**NEXT**> will change the display into:

```
ON BY TIMER
```

E. Click <**OK**>. The display will read:

```
start-    HH:MM A
```

F. Click <**OK**>. The display will change to:

```
start-    00:00 A
```

G. Enter the time at which you wish the output to be activated.

Note: *AM and PM are selected by clicking "✶" and "#", respectively.*

Once the time on display is correct, regardless of the cursor position, click <**OK**> twice. The happy tune will sound and the display will revert to: "**start - HH:MM**"

H. Click <**NEXT**>. The display will now read:

```
stop-     HH:MM P
```

I. Click <**OK**>. The display will change to:

```
stop-     00:00 P
```

J. Enter the time at which you wish the output to be deactivated. Once the time on display is correct, regardless of the cursor position, click <**OK**> twice. The happy tune will sound and the display will revert to "**stop - HH:MM**"

K. Click <**HOME**> to return to "**ON BY TIMER**" and then <**NEXT**>. The display will show:

```
ON BY ZONES
```

L. Click <**OK**>. The display will read:

```
a-zone
```

M. Click <**OK**>. The display will change to:

```
a-zone        __
```

N. Enter the number of the first zone that you designate for activating this output, and then click <**OK**>. The display will revert to "**a - zone**".

O. Click <**NEXT**> to select "**b - zone**" and repeat steps **L** through **N** for the second zone. When done, the display will revert to "**b - zone**".

P. Click <**NEXT**> to select "**c - zone**" and repeat steps **L** through **N** for the third zone. When done, the display will revert to "**C - zone**".

Q. Click <**HOME**> to return to "**ON BY ZONES**" and then <**HOME**> again. The display will show:

```
DEFINE PGM
```

R. Click <**NEXT**> to select the "**DEFINE X-10**" sub-mode and then continue as in 7.3 below.

7.3 Controlling the X-10 Units

Here you can perform the following programming actions:

- Select the house code (a code letter from A to P that will distinguish the site in which the system is installed from other sites in the neighborhood).

- Select the factors that will activate each X-10 unit. The list of factors is the same as for the PGM output (see Para. 7.2 above).

Note: *Each X-10 unit may be programmed for activation by any combination of factors.*

Having gained access to **DEFINE X-10** (see Para. 7.1 B), proceed as follows:

A. Click <**OK**> while **DEFINE X-10** is displayed. The display will show:

```
SET HOUSE CODE
```

B. Click **<OK>** again. The display will read:

```
house code = X ■
```

The "X" represents a letter from A to P and the dark box means that this letter is the current choice.

C. Click <**NEXT**> or <**BACK**> repeatedly to reach the desired code letter. When it is on display, click <**OK**> twice. The display will revert to **Set House Code**. Then click <**NEXT**>. The display will change to:

```
DEVICE CODE
```

The system controls up to seven X-10 units. If you click <**OK**> now, code No. 1 will be selected automatically:

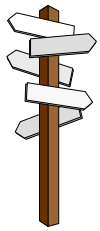
```
code no. 1
```

D. Click <**NEXT**> or <**BACK**> to select any other code. Once the desired code is displayed, click <**OK**>. The display will change to:

```
ON BY ARMING
```

E. Continue as in Paragraph 7.2, Steps C through P, until you finish defining the factors that will activate the selected X-10 unit. When done, Click <**HOME**> to select any other X-10 unit and program the factors that will activate it the same way as you did for the first one.

F. Once you are through dealing with all 7 (or just all relevant) device codes, you have completed a full cycle of the DEFINE OUTPUTS mode.



If at this point you wish to return to the installer's menu, click <**AWAY**>. This will get you back to:

```
<OK> TO EXIT
```

You may now review and select any other mode on the installer's menu (by clicking <**NEXT**> or <**BACK**>).

8. RECORDING SPEECH

8.1 Mode Description and Activation

This mode allows you to record short-duration speech messages for two purposes:

- **House identity** is a message announced automatically when events are reported to private telephones.
- **3 custom zone names** can be recorded and assigned to specific zones. These names prove useful if none of the 26 fixed zone names are found suitable for a certain zone (see Para. 4.2, Step G.).

To activate the recording mode, proceed as follows:

A. Upon gaining access to the installer menu (see Section 1), the display will read "**1. NEW INSTL CODE**".

B. Click <**NEXT**> until the 7th mode is displayed:

```
7. RECORD SPEECH
```

8.2 Recording Procedure

Having gained access to the **RECORD SPEECH** mode, you can now record the house identity.

A. Click <**OK**>. The display will change into:

```
HOUSE IDENTITY
```

B. Press the <**2**> key until this is displayed briefly:

```
RECORD A MESSAGE
```

Immediately thereafter, the display will change into:

```
TALK NOW ■■■■■
```

C. Do not release the <**2**> key and start talking immediately, while facing the front panel. The dark square boxes will slowly disappear one by one, from right to left. When the last one disappears (5 seconds later) the following message will be displayed:

```
RECORDING ENDED
```

D. Release the <**2**> key. To check the message, press the <**5**> key and listen to the playback.

E. Click <**NEXT**>. The display will change into:

```
USER TERM #1
```

F. Record the first customized zone name as in Steps B through D above (recording duration is 3 seconds only).

G. Click <**NEXT**> and repeat the procedure for the **2nd zone name** and **3rd zone name.** When done, click <**HOME**> to return to the main menu.

You may now click <**NEXT**> to test the system (see Section 9).

9. DIAGNOSTIC TEST

9.1 Mode Description and Activation

This mode allows you to test the function of all wireless sensors deployed throughout the protected area, to collect information about the received signal strength from each transmitter and to review accumulated data after the test.

The diagnostic test is designed to sense and report 3 reception levels as shown in the following table:

Reception	Buzzer Response
Strong	Happy Tune twice (- - - ——) (- - - ——)
Good	Happy Tune (- - - ——)
Poor	Sad Tune (————)

To activate the diagnostic mode, proceed as follows:

A. Upon gaining access to the installer menu (see Section 1), the display will read "**1. NEW INSTL CODE**".

B. Click <**NEXT**> until the 8th mode is displayed:

```
8. DIAGNOSTICS
```

You may now conduct a walk test to check the system and gather diagnostic data.

Note: *You may draw conclusions on the level of reception by just listening to the buzzer response. If you are not sure though, you may review the test results upon conclusion of the test (see Para. 9.2, Step C).*

9.2 Test Procedure

Having gained access to the DIAGNOSTICS mode, proceed as follows:

A. Click <**OK**>. The display will read:

```
DIAG. TESTING
```

B. Walk test the entire protected site, making sure that all detectors and sensors are triggered into alarm. Whenever a sensor alarms, the zone name, number and reception level will be displayed - see this example:

```
Bathroom
```

↓

```
Z19  STRONG
```

↓

```
DIAG. TESTING
```

You may listen to the buzzer response to signals received from each sensor, thus being informed of the signal level (see table in Para. 9.1). If the buzzer does not respond - the signal was not received.

C. Upon completion of the test, you may review the results by pressing <**OK**> repeatedly. The test results appear one by one, starting with zone 1 and going up.

```
FRONT DOOR
```

(alternating for 5 seconds)

```
Z1  POOR
```

and then:

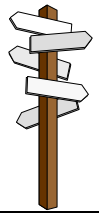
```
LIVING ROOM
```

(alternating for 5 seconds)

```
Z2  GOOD
```

D. To focus the test on a specific zone, click <**OK**> until the reception level for that zone is displayed. Then resume testing this particular zone (re-locate the wireless sensor or remove objects that might block its transmission) until you are satisfied with the results.

IMPORTANT! *Reliable reception must be assured even when a signal attenuation of up to 6 dB occurs (due to changes in the environment after installation).* ***A "poor" signal is therefore not acceptable****. If you get a "poor" signal from a certain detector, re-locate it and re-test until the test result is "good" or "strong". This principle must be adhered to during the initial test and also throughout subsequent system maintenance.*



If at any time you wish to return to the installer's menu, click <**AWAY**>. This will get you back to:

```
<OK> TO EXIT
```

You may now review and select any other mode on the installer's menu (by clicking <**NEXT**> or <**BACK**>).

10. USER FUNCTIONS

This mode provides you with a gateway to the user functions through the regular user programming menu. You may:

- **Program the 4th (follow-me) telephone number**
- **Program user codes**
- **Select the voice option**
- **Set the system clock**
- **Set the Date**

Refer to the User Guide for detailed procedures.

Caution! If after having programmed the user codes the system does not recognize your installer code, you must have programmed a user code that is identical with your installer code. If so, access the user menu and change the code which is identical with your installer code. This will re-validate your installer code.

11. READING THE EVENT LOG

11.1 Event Log Description

All events are memorized in an event log that contains up to 100 entries. You can access this log, review the events one by one and draw technical and functional conclusions.

If the event log fills up completely (the number of registered events reaches 100) it continues to accept new events at the expense of old events - the oldest event is deleted upon registration of each new event.

The date and time of occurrence are memorized for each event. When reading the event log, events are shown in chronological order - from the newest to the oldest. Because of the limited display space, the event description is shown first, then the date and time. The two displays are shown alternately several times, until you click <**OK**> to move on to an older event, or until the "no action" 4-minute timeout restores the system to the normal operating mode.

Access to the event log is provided by clicking the asterisk (★) key and not through the regular installer's menu.

Should you wish to get an overall view of using the log, refer to Figure 7. The chart there may even serve as your only guide to using the event log, instead of going through the written step-by-step procedure.

11.2 Reading Procedure

To read the event log, proceed as follows:

A. While the system is in the normal operating mode, click the asterisk (★) key. The display will change to:

```
CODE  _ _ _ _
```

B. Enter the current installer code. If the code is correct, the "Happy Tune" will sound and the display will read:

```
LIST OF EVENTS
```

Important! Entering an incorrect code 5 times in a row will initiate a 30-second penalty lockout of the keypad.

C. Click <**OK**>. The latest event will be shown. Suppose that the latest event was an alarm in zone 13. The display will now read:

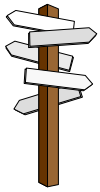
```
Z13     ALARM
```

and then:

```
09/02/99     3:37P
```

The two displays will be shown alternately until you click <**OK**> again to move to the next event, or until the event log times out (4 minutes).

D. Click <**OK**> as many times as necessary to read all the data you need.



- To clear the event log, refer to Para. 11.3.
- To quit the event log:
  - Click <**HOME**> or <**AWAY**> from anywhere within the log. The display will read:

```
<OK>  TO  EXIT
```

  - Click <**OK**>. The system will return to the normal operating mode.

11.3 Erasing the Event Log

A. From anywhere within the event log, click <**NEXT**>. The display will change to:

```
CLEAR  EVENT  LOG
```

B. Click <**OK**>. The display will change to:

```
<OFF>  TO  DELETE
```

C. Click <**OFF**>. The "Happy Tune" will sound and the display will change to:

```
<OK>  TO  EXIT
```

Note: *If you change your mind before clicking <**OFF**>, click <**HOME**> or <**AWAY**>. This will also get you to "**<OK> TO EXIT**" without erasing the event log. Clicking <**NEXT**> will return you to "**CLEAR EVENT LOG**".*

D. Click <**OK**>. The system will revert to the normal operating mode.

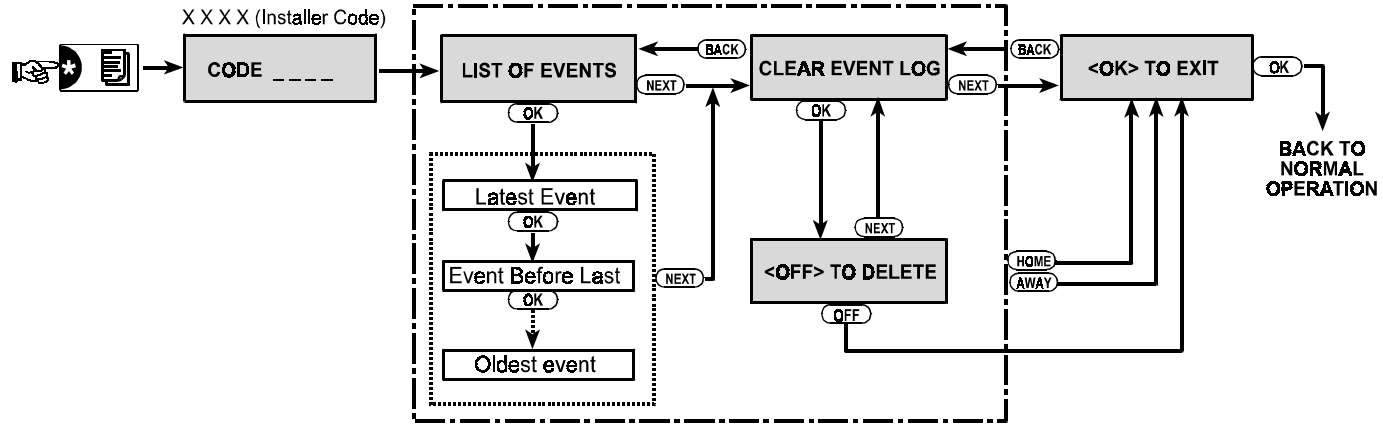


Figure 7. *Using the Event Log*

APPENDIX A. EVENT CODES

Contact ID Event Codes

Code	Definition
101	Emergency
110	Fire
120	Panic
121	Duress
122	Silent
123	Audible
131	Perimeter
132	Interior
134	Entry/Exit
137	Tamper/CP
301	AC loss
302	Low system battery
321	Bell
344	RF receiver jam detect
350	Communication trouble
351	Telco fault
381	Loss of supervision RF
383	Sensor tamper
384	RF low battery
401	O/C by user
406	Cancel
408	Quick arm
441	Armed home
456	Partial arm
459	Recent close
570	Bypass
602	Periodic test report
607	Walk test mode
641	Senior watch trouble

SIA Event Codes

Code	Definition
AR	AC Restore
AT	AC Trouble
BA	Burglary Alarm
BB	Burglary Bypass
BC	Burglary Cancel
BR	Burglary Restore
BT	Burglary Trouble / Jamming
BZ	Missing Supervision
CF	Forced Closing
CL	Closing Report
CR	Recent Close
FA	Fire Alarm
FR	Fire Restore
HA	Holdup Alarm (duress)
LR	Phone Line Restore
LT	Phone Line Trouble
OP	Opening Report
PA	Panic Alarm
QA	Emergency Alarm
RP	Automatic Test
RX	Manual Test
RY	Exit from Manual Test
TA	Tamper Alarm
TR	Tamper Restore
XR	Sensor Battery Restore
XT	Sensor Battery Trouble
YR	System Battery Restore
YT	System Battery Trouble
YX	Service Required

4/2 Event Codes

Alarms

Zone No. ➜	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
1st digit	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Zone No. ➜	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
1st digit	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Restorals

Zone No. ➜	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
1st digit	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Zone No. ➜	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
1st digit	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Supervisory trouble

Zone No. ➜	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1st digit	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Zone No. ➜	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1st digit	7	7	7	7	7	7	7	7	7	7	7	7	7	7
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E

Low Battery

Zone No. ➜	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1st digit	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Zone No. ➜	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1st digit	9	9	9	9	9	9	9	9	9	9	9	9	9	9
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E

Forced Arming – 8 users

User No. ➜	1	2	3	4	5	6	7	8
1st digit	A	A	A	A	A	A	A	A
2nd digit	1	2	3	4	5	6	7	8

Zone Bypass

Zone No. ➜	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1st digit	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Zone No. ➜	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1st digit	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
2nd digit	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Panic / 24 Hours - 8 users

User No. ➜	1	2	3	4	5	6	7	8	Panic CP
1st digit	2	2	2	2	2	2	2	2	2
2nd digit	1	2	3	4	5	6	7	8	9

***Note**: Panic and Duress share the same code.*

Arm HOME and AWAY (Closing)

User No. ➜	1	2	3	4	5	6	7	8	Cancel alarm	Recent Close
1st digit	E	E	E	E	E	E	E	E	E	E
2nd digit	1	2	3	4	5	6	7	8	9	C

Disarm (Opening)

User No. ➜	1	2	3	4	5	6	7	8
1st digit	F	F	F	F	F	F	F	F
2nd digit	1	2	3	4	5	6	7	8

Trouble

Event ➜	Fuse Fail	Fuse Restore	Jamming	Jamming Restore
1st digit	2	2	2	2
2nd digit	C	D	E	F

Event ➜	AC Failure	AC Restore	CPU Low Battery	CPU Low Battery Restore	CP tamper	CP tamper restore	No Active
1st digit	1	1	1	1	1	1	1
2nd digit	1	2	3	4	6	7	8

Event ➜	COMM. & LINE Restore	Enter Test	Exit Test	Auto Test
1st digit	1	1	1	1
2nd digit	A	D	E	F

APPENDIX B. PROGRAMMABLE ZONE TYPES

B1. Interior Zones

Interior zones are zones within the protected premises that have nothing to do with perimeter protection. Their most important feature is that they allow free movement within the protected area without initiating an alarm, provided that the system is armed in the "HOME" mode. People can therefore stay at home and move about freely, as long as they do not disturb a *PERIMETER zone*.

Once the system is armed in the AWAY mode (all zones are protected), interior zones will initiate an alarm if violated.

B2. Perimeter Zones

Perimeter zones serve exactly for the purpose implied by their name. They rely on detectors designed to protect doors, windows and walls. An immediate alarm is initiated when such a zone is violated by opening the door/window or by trying to break the wall.

B3. Delay Zones

A delay zone has exit and entry delays set by you in the course of programming the system. Warning beeps will sound throughout these delays, unless you choose to mute them.

- **Exit Delay.**- The exit delay begins once the user arms the system. It will allow him to leave via interior zones and a doorway before arming actually takes effect. When the exit delay starts, the buzzer beeps slowly and maintains a slow beeping rate until the last 10 seconds, throughout which it beeps rapidly. The PowerMax has two types of delay zones, for which different delay times may be set.
- **Entry Delay.**- The entry delay begins once the user enters the protected area via a specific doorway (his entry is sensed by a delay zone detector). To avoid an alarm, he must reach the keypad via interior zones (which become "follower zones" during the entry delay) and disarm the system before the delay expires. When the entry delay starts, the buzzer beeps slowly until the last 10 seconds, throughout which it beeps rapidly.

B4. 24-Hour Zones

24 hour zones are mainly used for PANIC buttons, perimeter detectors and anti-tamper protection. They there- fore trigger an alarm in both armed and disarmed states.

- **24 Hour Zone - Silent.** - Upon detection, this zone initiate a silent alarm, meaning that the sirens do not function but the PowerMax dials telephone numbers and reports the event to central stations and/or to private telephones, as programmed.
- **24 Hour Zone - Audible.** - Upon detection, this zone initiates a siren alarm, but the PowerMax also dials telephone numbers and reports the event to central stations and/or to private telephones, as programmed.

B5. Fire Zones

A fire zone uses smoke detectors and is permanently active (a fire alarm is triggered regardless of whether the system is armed or disarmed). Upon detection of smoke, a **pulsating siren** sounds immediately, and the event is reported via the telephone line.

B6. Non-Alarm Zones

A non-alarm zone does not directly participate in the alarm system. Its main use is to perform auxiliary remote control tasks such as opening / closing a gate, activating / deactivating a courtesy light and similar applications. No alarm, silent or otherwise, is associated with a non-alarm zone.

For remote control of electrical devices, you can define the desired number of non alarm zones and enroll a portable transmitter or a wireless device (detector) to each such zone. Then you must ensure that these zones are permitted to control the PGM output, or the X-10 units or both (see Section 7). After this you can select the zones (3 at most) that will control each output. The outputs, in turn, will control the external electrical devices.

Note: *Device control can also be carried out by holders of all keyfob transmitters, by pressing the AUX [✳] button. This method will work provided that you programmed the [✳] button for PGM/X-10 control (see Para. 5.16), and that you programmed the PGM output and the X-10 units to be controlled by keyfob transmitters (see Section 7).*

B7. Emergency Zones

You can provide incapacitated, sick or elderly people with a miniature single-button transmitter to be carried on the neck like a pendant or to be worn on the wrist like a watch. In distress situations, they can press the button of such a transmitter, causing the PowerMax to send an **emergency call** to the central monitoring station or to private telephones designated by the installer.

To make this possible, all you have to do is define the required number of zones as emergency zones and enroll a portable transmitter to each one of these zones. When done, ask the master user to distribute these transmitters to their potential users.

NOTES:

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MADE IN ISRAEL