



Installation and Operation Manual Z3 CONFIGURATION SOFTWARE USER'S MANUAL

Z³ SERIES SIREN AND CONTROL HEAD

Enhanced with additional features and full operation with the Z3-SWIF (Steering Wheel Interface Module for Ford PI Sedan & Utility)

PATENTED See: www.esg-ip.com



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WARNING!
Sirens produce loud sounds that may damage hearing

- Wear hearing protection when testing
- Use siren only for emergency response
- Roll up windows when siren is operating
- Avoid exposure to the siren sound outside of vehicle

IMPORTANT! Read all instructions before installing and using. Installer: This manual must be delivered to the end user.

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This software can only be used on a single terminal connected with a single computer at any one time. This means that the software should be loaded on only one hard drive at a time. If you wish to use this software on more than one computer, you must either erase the software from the first hard drive when you move the software to a second hard drive, or else purchase two copies of the software. You may not rent, lend, lease, or assign this software. You may, however, transfer the software and the accompanying written materials on a permanent basis. When you transfer the software on a permanent basis, you may not keep any copies, and you must remove the software from your hard disk. Also, the person to whom you transfer the software must agree to the terms of this License. You may not alter, modify, or adapt the software or accompanying materials. In addition, you may not translate, decompile, disassemble, or reverse engineer the software. You may also not create any derivative works based on this software. A derivative work is defined as a translation or other form in which the software may be recast, transformed, or adapted.

Z3 Siren Configuration Software Requirements

The Z3 Siren Configuration Software requires the following items to function properly:

- PC or laptop computer with a USB port.
- Microsoft Windows 7 or newer operating system (backwards compatible through Windows XP).
- USB cable (A Male to A Male).
- PDF reader to open the four PDF files available on the thumb drive. These include this manual along with the Installation & Operation Manual, Hardware Quick Install Manual and Software Quick Setup Manual. The two full manuals are also available through the help drop-down menu of the software.

Software Installation on Windows 7, 8, and 10

1. Insert the thumb drive into the host computer.
2. If AutoPlay window pops up, select "Run setup.exe" and go to step 6. Otherwise continue to step 3.
3. From the Start button, select Run, then click on Browse and navigate to the thumb drive.
4. Select the Setup.exe file and press Open.
5. Press OK to run Setup.exe which will start the setup.
6. Follow the instructions presented by the installation wizard.

After the software installation is complete, the program is started by double-clicking on the **Z** icon created on the desktop. The user can then configure and assign features and functions to each of the push-buttons, slide-switch positions, auxiliary inputs, etc. After clicking on the appropriate control, the settings that are available for that control are displayed. The setup can be saved for future use.

NOTE: Power must be connected to the two pin connector labeled with +12VDC and GND at the lower right of the Z3 Siren. If the Ignition input is connected to +12VDC during configuration, the Z3 Control Head will be disabled. The Control Head will begin to blink and beep to indicate that it is disabled. Configuration can be completed and the Z3 Siren will automatically restart when the USB cable is disconnected. No other connections are required, but will not interfere with configuration if connected.

Installation of USB Driver For Z3 Siren

The first time a Z3 Siren is connected to the computer, you will see a window popup similar to the one shown below. Follow the steps on the next page to install the USB driver for the Z3 Siren.

NOTE: This process will have to be repeated if a different USB port is used.



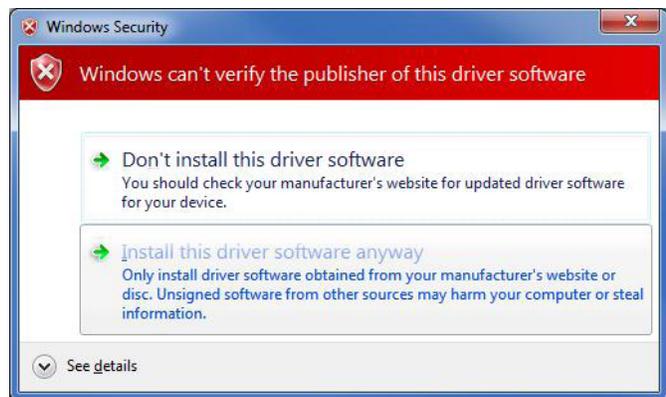
1. Select "No, not this time" and press the Next button.



2. Select “Install the software automatically (Recommended)” and press the Next button.

3. A Windows Logo compatibility warning may display.

- In Windows 10 it will look like the screenshot on the right. Click on the “Install this driver software anyway” button to finish the installation.



The installation is now complete. Any time a Z3 Siren is connected in the future, the software will recognize it and connect automatically.

Reset Device Connection

If the computer does not recognize the Siren or if the USB connection is moved to a new port, following these steps to restore connection.

1. Check the USB cable for proper connection between the Z3 Siren and the computer.
2. Check the power to the Z3 Siren.
3. In the Z3 Siren Configuration Software, press the Tools drop-down menu and click on the Communications and then click on the Reset device connection as seen in the figure below.



A 'Reset Device Connection' window will pop up.



ATTENTION!!! The USB cable must be disconnected or the reset will not work properly. Once the USB cable is disconnected press the Continue button.

A second 'Reset Device Connection' window will pop up.

A second 'Reset Device Connection' window will pop up.



ATTENTION!!! The USB cable must be reconnected or the reset will not work properly. Once the USB cable is reconnected then press the Continue button. The software should find the Z3 Siren connected to the computer. If the Z3 Siren is not automatically detected, then contact the Code 3 service department.

Basic Steps to Configure the Z3 Siren

1. Launch the Z3 Siren Configuration software.
2. Connect PC to the USB cable.
3. Connect the USB cable to the Z3 Siren.
4. Connect power to the Z3 Siren.
5. Configure the Z3 Siren in the software as desired.
6. Export the configuration to the Z3 Siren.
7. Remove USB cable from the Z3 Siren.
8. Remove power from the Z3 Siren.
9. Repeat steps 3-8 for additional Z3 Sirens.
10. Save configuration.

Basic Z3 Siren Configuration Software Functions

When the Z3 Siren Configuration Software is started it will come up in the 'General Configuration' mode. To select the configuration for any push-button click on the desired push-button. There are two ways to select the position of the 3-Level Switch.

1. Move the cursor over the 3-Level Switch area and 'left-click' to move the 3-Level Switch to the left or 'right-click' to move the 3-Level Switch to the right.
2. Click on the 3-Level Switch indicator LED for the desired position. The top LED is Level 1, the middle LED is Level 2 and the bottom LED is Level 3.

NOTE: The indicator LEDs will light up based on the 3-Level Switch configuration. For example if the 3-Level Switch is configured as a progressive switch and the switch is moved into the Level 3 position, then all three LEDs will be lit.

There are two ways to return to the 'General Configuration' mode.

1. Click on the 'Gen Config' button in the tool bar.
2. Click on the 3-Level Switch 'Off' position.

The lower right corner displays a description of the selected function and the configurable items.

General Configuration

3-Level Switch (General)

The 3-Level Switch can be configured to control each level in one of four options.

- **Progressive** – Turns on each level progressively leaving the previous level and it's options on. This is the default.
- **Independent** – Turns on each level and it's options independently.
- **Semi-Progressive** – Levels 1 and 2 are independent. Level 3 will turn on all levels.
- **User Defined** – Levels 2 and 3 can be configured to operate in multiple combinations (see Figure 1). Level 1 will always operate Level 1 only and is not configurable.

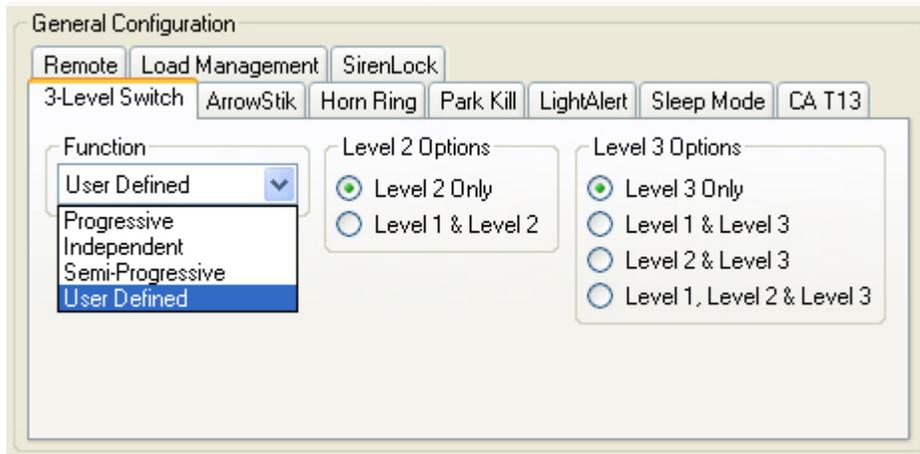


Figure 1

NOTE: The options for each position of the 3-Level Switch can be set individually (see Push-Buttons and 3-Level Switch Configuration section for details).

ArrowStik

The ArrowStik configurations are for use with a conventional ArrowStik. The default is set for 'None' for use with a Centrally Controlled (CC) ArrowStik (see Figure 2). If a conventional ArrowStik is to be used, select from the following options. Once these options have been selected, the flash rate and pattern can be selected by clicking on the ArrowStik push-buttons.

- **ArrowStik Characterization** – Drop down list for the number of light heads in the ArrowStik (5, 6, or 8 heads).
- **End Flash** – End Flash will cause the first and last light heads to alternate whenever the ArrowStik is activated. This feature is only available for 5 and 6 light heads.
- **PWM Dimming** – Enable PWM Dimming should be used for LED ArrowStiks only. This feature will dim the ArrowStik whenever the DIM push-button is activated.

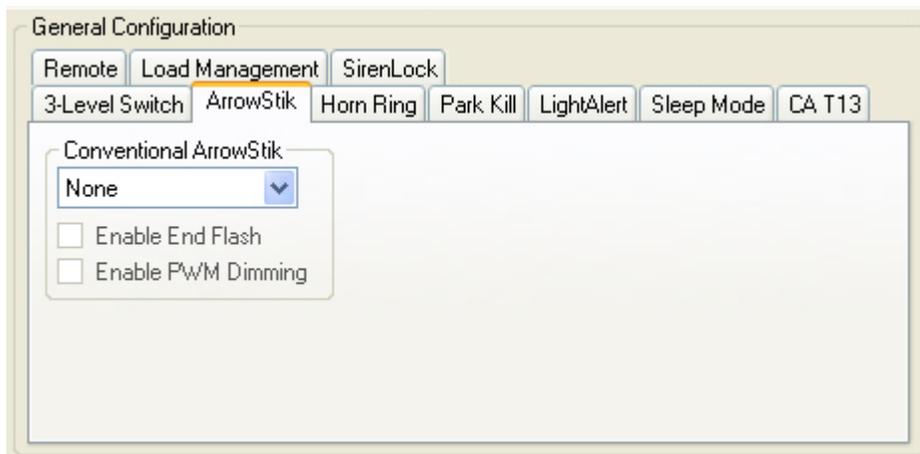


Figure 2

NOTE: The flash rate and flash patterns for each ArrowStik can be set individually (see Push-Buttons and 3-Level Switch Configuration section for details).

Horn Ring

The vehicle horn ring can be used to control the Z3 Siren in three modes of operation: Siren Active, Siren Inactive or Hands-Free. The Siren Active mode is anytime the Z3 Siren is generating one of the Primary tones (Wail, Yelp or Alt). The Siren Inactive mode is anytime the Z3 Siren is not generating tones. The Hands-Free mode is anytime one of the Auxiliary push-buttons is configured for Hands-Free feature and this Auxiliary push-button is active. The Hands-Free mode will override the Siren Active and Siren Inactive modes.

The Horn Ring input has the following configurable options (see Figure 3 on the next page):

- **Enable –**
 - Always – The Horn Ring input is enabled at all times independent of the Horn Ring Transfer relay.
 - With Horn Ring Transfer – The Horn Ring input is only enabled when the Horn Ring Transfer relay is activated.
NOTE: The Horn Ring Transfer relay is built into the Z3 Siren. It can be activated by the 3-Level Switch (see Push-Buttons and 3-Level Switch Configuration section for details). It is automatically activated anytime the Hands-Free mode is active or if the Horn Ring is configured for the Scroll On/Off feature.
- **Polarity –**
 - Ground – The Horn Ring is activated by connecting it to Ground.
 - Positive – The Horn Ring is activated by connecting it to a +12VDC signal.
- **Siren Active –**
 - Hit-N-Go – The Z3 Siren will switch to an Override tone for 8 seconds and then return to the Primary Tone each time the Horn Ring input is activated by a short tap of the vehicle horn ring. The Override tones can be individually set for each Primary tone (see Push-Buttons and 3-Level Switch Configuration section for details).
 - Scroll – The Z3 Siren will Scroll to the next Primary tone each time the Horn Ring input is activated by a short tap of the vehicle horn ring. Additional taps on the vehicle horn ring will Scroll to the next Primary tone. The Z3 Siren will remain in the newly selected tone. The Z3 Siren will Scroll from Wail to Yelp to Alt and then back to Wail. Holding the vehicle horn ring for greater than a half second will cause the Z3 Siren to generate the Air Horn.
 - Scroll On/Off - The Z3 Siren will Scroll from Off to Wail when the Horn Ring input is activated by a short tap of the vehicle horn ring. Additional taps on the vehicle horn ring will Scroll to the next Primary tone. The Z3 Siren will remain in the newly selected tone. The Z3 Siren will Scroll from Off to Wail to Yelp to Alt and then back to Off. Holding the vehicle horn ring for greater than a half second will cause the Z3 Siren to generate the Air Horn. When this option is selected the Horn Ring Siren Inactive mode is disabled.
 - Manual Wail – The Z3 Siren will ramp up as long as the vehicle horn ring is pressed and the ramp down when it is released. The Z3 Siren will return to the Primary tone.
 - Wail Stop – The Z3 Siren will ramp up as long as the vehicle horn ring is pressed and stop generating the tone when it is released. The Z3 Siren will return to the Primary tone.
 - Air Horn 1 – The Z3 Siren will generate the Air Horn 1 tone as long as the vehicle horn ring is pressed and then return to the Primary tone when it is released.
 - Air Horn 2 – The Z3 Siren will generate the Air Horn 2 tone as long as the vehicle horn ring is pressed and then return to the Primary tone when it is released.
- **Siren Inactive –**
 - None – The Z3 Siren will not respond to the vehicle horn ring.
 - Manual Wail – The Z3 Siren will ramp up as long as the vehicle horn ring is pressed and the ramp down when it is released.
 - Wail Stop – The Z3 Siren will ramp up as long as the vehicle horn ring is pressed and stop generating the tone when it is released.
 - Air Horn 1 – The Z3 Siren will generate the Air Horn 1 tone as long as the vehicle horn ring is pressed.
 - Air Horn 2 – The Z3 Siren will generate the Air Horn 2 tone as long as the vehicle horn ring is pressed.
- **Hands-Free Scroll – (not configurable)**
 - Scroll – The Z3 Siren will Scroll from Off to Wail when the Horn Ring input is activated by a short tap of the vehicle horn ring. Additional taps on the vehicle horn ring will Scroll to the next Primary tone. The Z3 Siren will remain in the newly selected tone. The Z3 Siren will Scroll from Off to Wail to Yelp to Alt and then back to Wail. Holding the vehicle horn ring for greater than a half second will turn off the tones, but the Z3 Siren will remain in the Hands-Free mode.
NOTE: The InterClear output will turn on for 8 seconds anytime the Z3 Siren operates the Hit-N-Go, Scroll, Scroll On/Off or Hands-Free Scroll. The InterClear output provides a +12V signal to control an external device for additional warning.



Figure 3

Park Kill

The Park Kill input can be used to disable certain features when the vehicle is shifted into park. The default setting will turn off the siren tones and the Level 3A output. When the vehicle is shifted into drive then Level 3A output will turn back on automatically, but the siren tones will only turn on if an action occurs. The tones will turn on if any push-button on the Control Head is activated, the position of the 3-Level Switch is changed or pressing the microphone PTT.

Park Kill has the following options (see Figure 4):

- **3-Level Switch Control** – Turns off Level 3A and/or Level 3B outputs. The Level 3 LED (RED) on the Control Head will flash to indicate that the outputs are off. It will blink if Level 3A or Level 3B is turned off, will be off if Level 3A and Level 3B are turned off and will stay on steady if Level 3A and Level 3B are on.
NOTE: This will only turn off the selected 3-Level output. Any other features associated with the 3-Level Switch will be unchanged. The outputs will automatically turn on when the vehicle is shifted into drive.
- **Siren Control** – Will turn off and disable all siren tones except for the Air Horn.
- **Polarity** –
 - Ground – The Park Kill is activated by connecting it to Ground.
 - Positive – The Park Kill is activated by connecting it to a +12VDC signal.
- **Auxiliary Switch Control** – Each Auxiliary push-button can be configured for one of three settings:
 - No Impact – The Park Kill will have no impact on the operation of the Auxiliary push-button.
 - Off – The Park Kill will turn off and disable the Auxiliary push-button. The push-button will not turn on when the vehicle is shifted into drive.
 - Pause – The Park Kill will turn off and disable the Auxiliary push-button. If the push-button was on before the vehicle was shifted into park, then it will turn on again as soon as the vehicle is shifted into drive.

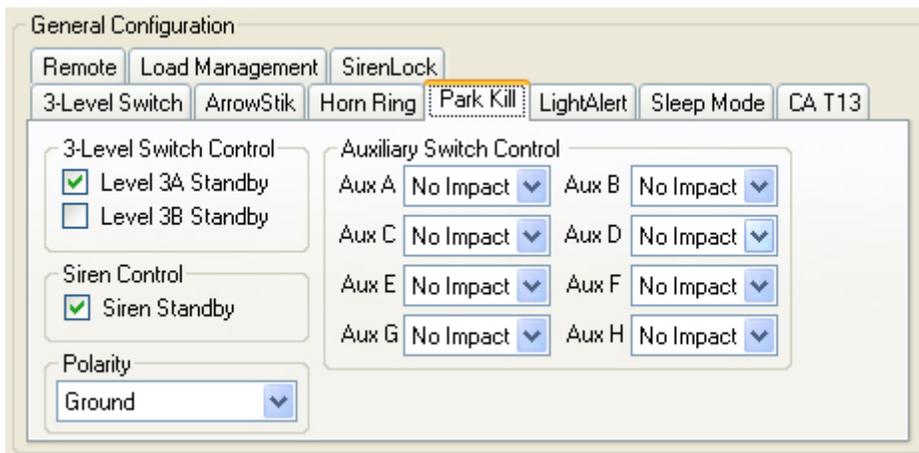


Figure 4

LightAlert

LightAlert is intended to alert the operator with an audible tone when any push-button or 3-Level Switch is activated. By default, LightAlert is enabled for all positions of the 3-Level Switch, all eight Auxiliary push-buttons and all four ArrowStik push-buttons. LightAlert can be disabled for any individual function by clicking on the check box. If the box is checked, then LightAlert is active for that function (see Figure 5).

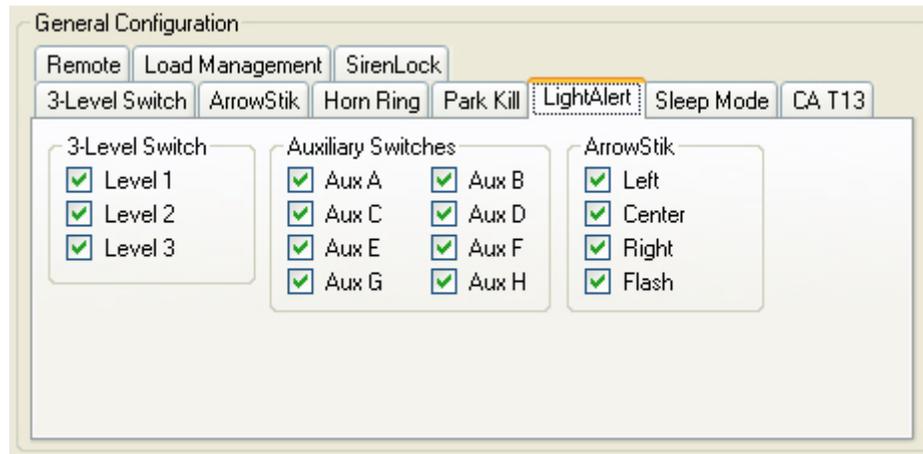


Figure 5

Sleep Mode

The Sleep Mode determines how long the Z3 Siren will stay on after the vehicle ignition is turned off. All functions will remain in full operation during Sleep Mode except for the Auxiliary push-buttons. The Auxiliary push-buttons can be configured to be disabled when the vehicle ignition is off (see Push-Buttons and 3-Level Switch Configuration section for details). The LoadManager can be used with the Sleep Mode to turn off functions if the vehicle battery should drop to critical levels. The Z3 Siren can be forced to exit the Sleep Mode and shut down instantly at any time by pressing the ArrowStik FLASH push-button for 1 second.

The Sleep Mode has the following configurable options (see Figure 6):

- **Instant** – The Z3 Siren will shut off immediately when the vehicle ignition is turned off.
- **10 Minutes** – Delays turning the Z3 Siren off for 10 minutes after the vehicle ignition is turned off.
- **20 Minutes** – Delays turning the Z3 Siren off for 20 minutes after the vehicle ignition is turned off.
- **30 Minutes** – Delays turning the Z3 Siren off for 30 minutes after the vehicle ignition is turned off.
- **1 Hour** – Delays turning the Z3 Siren off for 1 hour after the vehicle ignition is turned off.
- **2 Hours** – Delays turning the Z3 Siren off for 2 hours after the vehicle ignition is turned off.
- **4 Hours** – Delays turning the Z3 Siren off for 4 hours after the vehicle ignition is turned off.

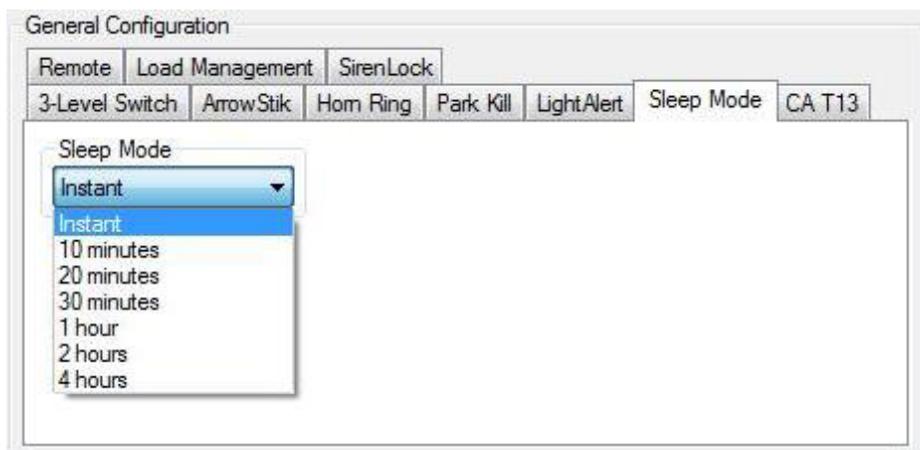


Figure 6

CA T13

The CA T13 option will automatically configure the Z3 Siren to be California Title 13 compliant. When CA T13 is enabled, ALT TONE will be disabled, the AIR HORN will be disabled when any siren tone or emergency warning light is active and SirenLock will be enabled for Level 3. CA T13 is disabled by default.



Figure 7

Remote

The Remote works like the Horn Ring input except for the Hands-Free mode. Please refer to the Horn Ring section for details on the Siren Active and Siren Inactive options. The Remote input can be connected to a remotely mounted momentary switch such as a foot switch.

The Remote input has the following options for the Hands-Free mode (see figure 8):

- **Hands-Free –**

- None – The Z3 Siren will not respond to the Remote input.
- Scroll – The Remote input will operate like the Horn Ring Scroll (see Horn Ring for details).
- Manual Wail – The Z3 Siren will ramp up as long as the Remote input is active and the ramp down when it is released.
- Wail Stop – The Z3 Siren will ramp up as long as the Remote input is active and stop generating the tone when it is released.
- Air Horn 1 – The Z3 Siren will generate the Air Horn 1 tone as long as the Remote input is active.
- Air Horn 2 – The Z3 Siren will generate the Air Horn 2 tone as long as the Remote input is active.

NOTE: The Remote input can be configured as an EU Lock input. When configured as the EU Lock input all other configurations of the Remote are disabled. In this mode, the Remote is connected to a user supplied light sense module that provides a signal that indicates if the emergency lights are operational or not. When there is no signal to the Remote input all siren tones will be disabled.

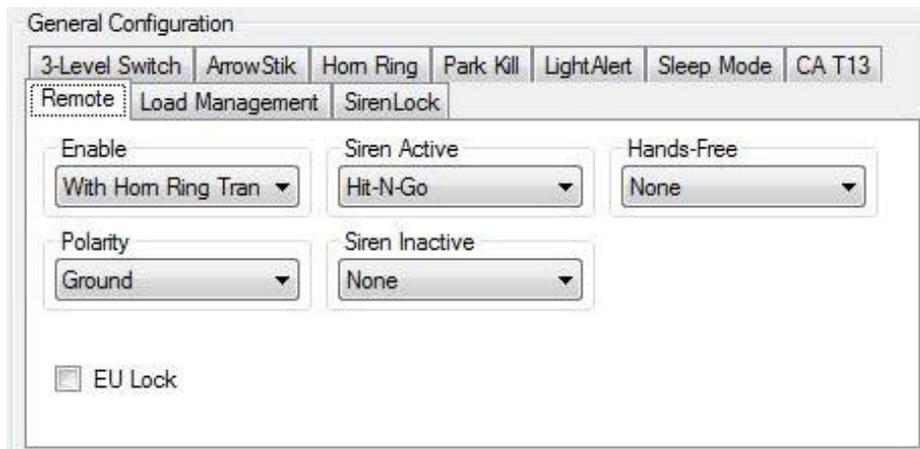


Figure 8

Load Management

The Load Management has three Dropout Voltage Groups. Each group can be set for a separate Voltage Fault Threshold and Dropout Delay. The 3-Level Switch outputs, Auxiliary outputs and ArrowStik outputs can be configured to any one of the three groups. Once an output is configured to a group it cannot be configured to any other group. (see Figure 9). If the input voltage to the Z3 Siren drops below the Voltage Fault Threshold, the Dropout Delay timer will start. When the Dropout Delay timer has timed out, the configured outputs will be shut off. The Z3 Siren Ignition input must be turned off and then on again to activate any outputs disabled by the Load Management.

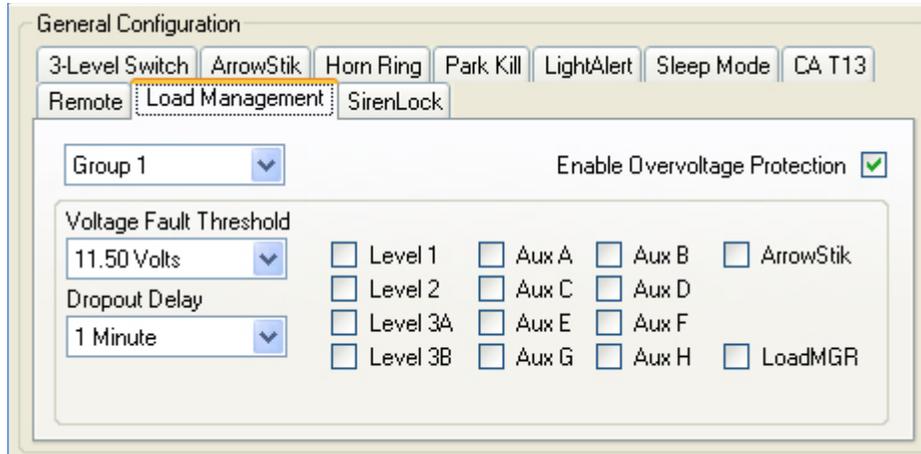


Figure 9

SirenLock

SirenLock is used to set which 3-Level Switch position (Level 1, 2 or 3) will allow the Z3 Siren to generate the Primary tones (see Figure 10). When SirenLock is enabled, the Z3 Siren is 'Locked' from generating Primary tones until the configured 3-Level Switch position is activated. SirenLock does not affect the MANUAL and AIR HORN push-buttons. The default for SirenLock is disabled and the Z3 Siren will generate Primary tones when the push-button (Wail, Yelp or Alt) is activated regardless of the position of the 3-Level Switch. When SirenLock is disabled, the Primary tone push-buttons can be configured to activate the 3-Level Switch outputs when activated (see Push-Buttons and 3-Level Switch Configuration section for details).

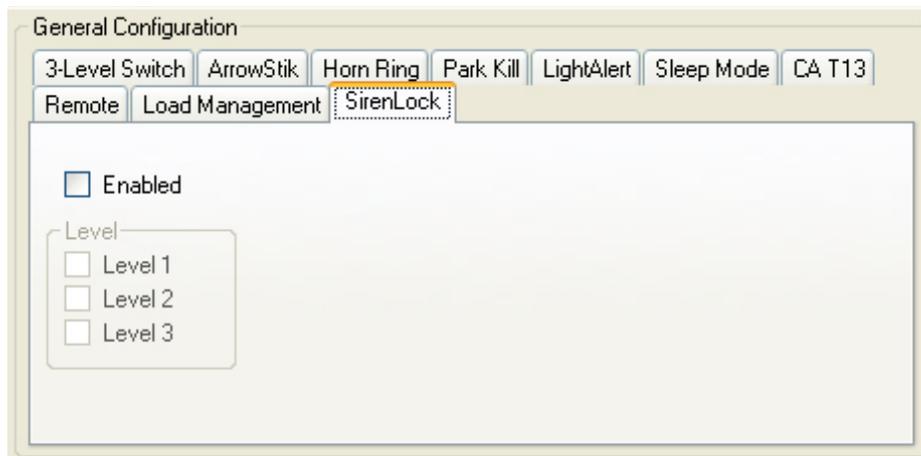


Figure 10

Push-Buttons & 3-Level Switch Configuration

The 3-Level Switch and the push-buttons can be configured individually by clicking on the push-button or by selecting the 3-Level Switch position (see the Basic Z3 Siren Configuration Software Functions section for details on selecting the 3-Level Switch position).

3-Level Switch

The 3-Level Switch activates the four 3-Level outputs. The Level 1 position will activate the Level 1 output. The Level 2 and Level 3 positions can be configured to activate the outputs Progressively, Semi-Progressively, Independently and User Defined (see 3-Level Switch under General Configuration section). Each level can be configured to activate Auxiliary push-buttons, ArrowStik push-buttons and the Horn Ring Transfer (see Figures 11, 12 and 13).

NOTE: The 3-Level Switch may be overridden by the Manual, Wail, Yelp or Alt Tone push-buttons or by the Hands-Free mode. Each of these functions can be set to activate the 3-Level outputs when tones are generated (see the appropriate configuration section for details). If the 3-Level outputs are activated to by a tone push-button to a higher level than the position of the 3-Level Switch, then the push-buttons will override the 3-Level Switch.

The available options for each position are:

- **Enable** – If selected (box checked) then the 3-Level position will activate the configured functions.
- **Horn Ring Transfer** – The Horn Ring Transfer relay will be activated when the 3-Level Switch is moved to the configured position (default is Level 2 and Level 3).

NOTE: The Horn Ring Transfer is an internal relay that can be used to disable the vehicle horn and transfer the function to the Horn Ring input or Remote input (see Horn Ring and Remote sections for details).

- **Activate ArrowStik** –
 - None – No ArrowStik functions will be automatically activated by the 3-Level Switch.
 - Left – The Left ArrowStik function will automatically turn on when the 3-Level Switch is moved to the configured position.
 - Center - The Center ArrowStik function will automatically turn on when the 3-Level Switch is moved to the configured position.
 - Right – The Right ArrowStik function will automatically turn on when the 3-Level Switch is moved to the configured position.
 - Flash – The Flash ArrowStik function will automatically turn on when the 3-Level Switch is moved to the configured position.

NOTE: The ArrowStik functions can be manually controlled after the 3-Level Switch has activated one. If the ArrowStik functions are manually controlled, then the ArrowStik function will not turn off with the 3-Level Switch.

- **Activate Auxiliary Switch** – Each of the eight Auxiliary push-buttons can be automatically activated when the 3-Level Switch is moved to the configured position. If the Auxiliary push-button is activated by the 3-Level Switch it will be turned off when the 3-Level Switch is turned off or moved to a different position. The Auxiliary push-buttons can be manually controlled after the 3-Level Switch has activated one. If the Auxiliary push-button is manually controlled, then it will not turn off with the 3-Level Switch.



Level 1 Configuration

Enabled

Horn Ring Transfer
 Activated

Activate ArrowStik
None

Activate Auxiliary Switch

<input type="checkbox"/> Aux A	<input type="checkbox"/> Aux B
<input type="checkbox"/> Aux C	<input type="checkbox"/> Aux D
<input type="checkbox"/> Aux E	<input type="checkbox"/> Aux F
<input type="checkbox"/> Aux G	<input type="checkbox"/> Aux H

None
Left
Center
Right
Flash

Figure 11 (Level 1)

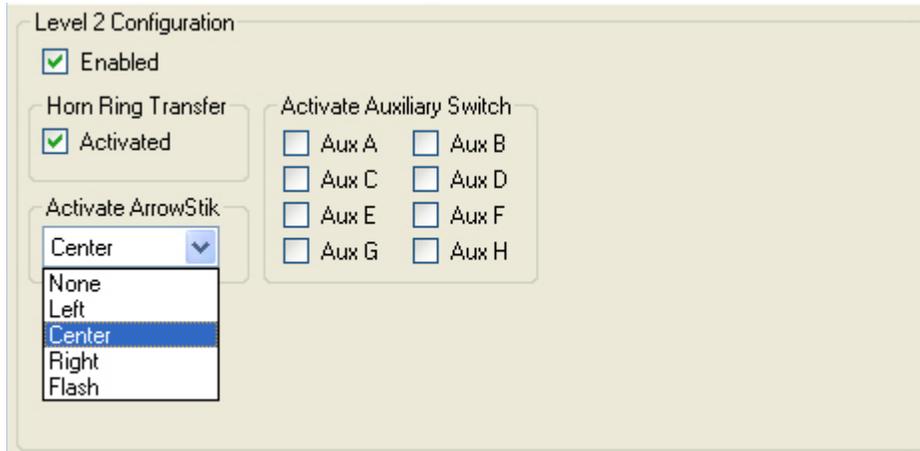


Figure 12 (Level 2)

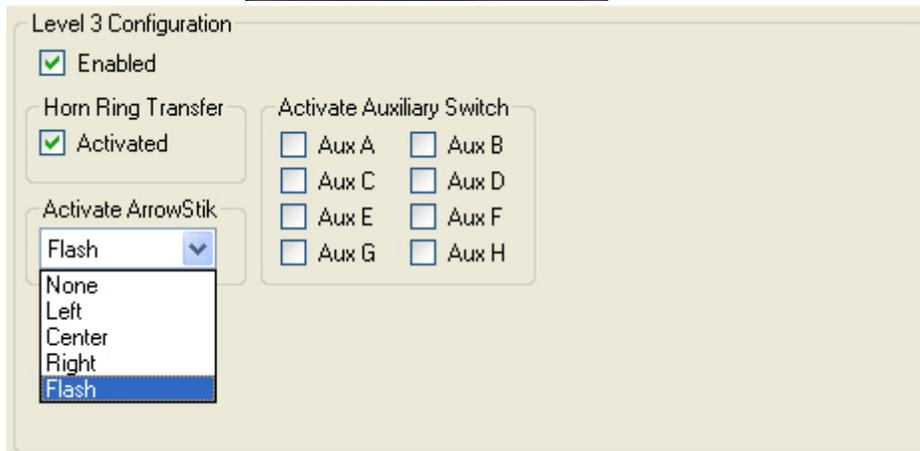


Figure 13 (Level 3)

WAIL

The WAIL push-button controls the Wail tone and its features. It cannot be disabled.

The available options are (see Figure 14):

- **Override Tone** – The Override Tone will be generated when the Hit-N-Go mode is activated. There are ten tones to choose from (Wail, Yelp, Hyper-Yelp 1, Hyper-Yelp 2, Hi-Lo 1, Hi-Lo 2, Hyper-Lo 1, Hyper-Lo 2, Air Horn 1 and Air horn 2).
- **Activates** – If SirenLock is disabled, the WAIL push-button can activate the 3-Level Switch and any of the eight Auxiliary push-buttons. Figure 14 is shown with SirenLock disabled.

NOTE: Setting the 3-Level Switch option in this section may affect the function of the 3-Level Switch (see the 3-Level Switch section for details).

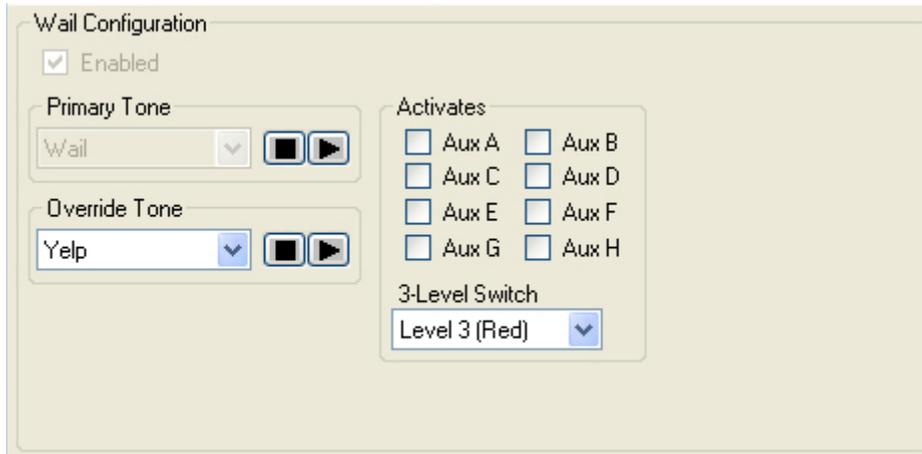


Figure 14

YELP

The YELP push-button controls the Yelp tone and its features. It cannot be disabled.

The available options are (see Figure 15):

- **Override Tone** – The Override Tone will be generated when the Hit-N-Go mode is activated. There are ten tones to choose from (Wail, Yelp, Hyper-Yelp 1, Hyper-Yelp 2, Hi-Lo 1, Hi-Lo 2, Hyper-Lo 1, Hyper-Lo 2, Air Horn 1 and Air horn 2).
- **Activates** – If SirenLock is disabled, the YELP push-button can activate the 3-Level Switch and any of the eight Auxiliary push-buttons. Figure 14 is shown with SirenLock disabled.

NOTE: Setting the 3-Level Switch option in this section may affect the function of the 3-Level Switch (see the 3-Level Switch section for details).

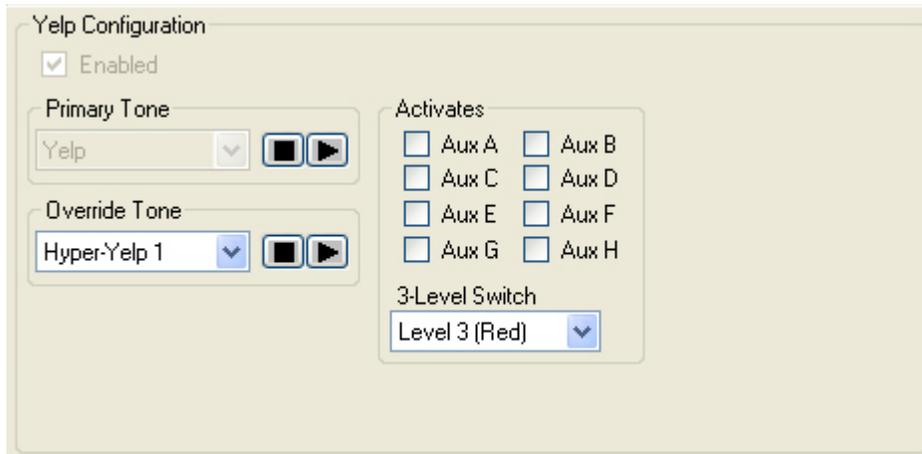


Figure 15

ALT TONE

The ALT TONE push-button can be configured to control one of ten Primary tones. It can be disabled.

The available options are (see Figure 16):

- **Primary Tone** – The Primary Tone will be generated when the ALT TONE push-button is activated in the Siren Active mode. There are ten tones to choose from (Wail, Yelp, Hyper-Yelp 1, Hyper-Yelp 2, Hi-Lo 1, Hi-Lo 2, Hyper-Lo 1, Hyper-Lo 2, Air Horn 1 and Air horn 2).
- **Override Tone** – The Override Tone will be generated when the Hit-N-Go mode is activated. There are ten tones to choose from (Wail, Yelp, Hyper-Yelp 1, Hyper-Yelp 2, Hi-Lo 1, Hi-Lo 2, Hyper-Lo 1, Hyper-Lo 2, Air Horn 1 and Air horn 2).
- **Activates** – If SirenLock is disabled, the ALT TONE push-button can activate the 3-Level Switch and any of the eight Auxiliary push-buttons. Figure 14 is shown with SirenLock disabled.

NOTE: Setting the 3-Level Switch option in this section may affect the function of the 3-Level Switch (see the 3-Level Switch section for details).

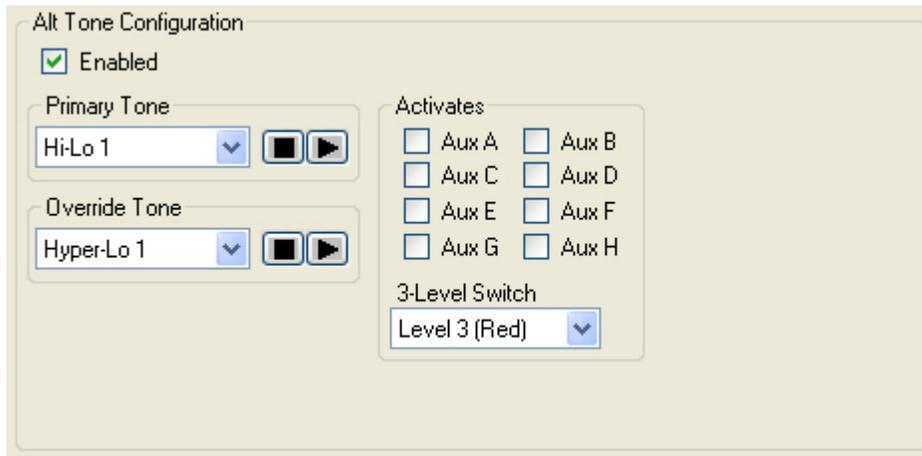


Figure 16

MANUAL

The MANUAL push-button is normally used to generate the Manual Wail or Wail Stop tones. It can be disabled. It can be configured for the following functions (see Figure 17):

- **Siren Active Function –**
 - None – The MANUAL push-button will be disabled in the Siren Active mode.
 - Hit-N-Go – The Z3 Siren will switch to an Override tone for 8 seconds and then return to the Primary Tone each time the MANUAL push-button is activated by a short tap. The Override tones can be individually set for each Primary tone (see Push-Buttons and 3-Level Switch Configuration section for details).
 - Scroll – The Z3 Siren will Scroll to the next Primary tone each time the MANUAL push-button is activated by a short tap. Additional taps will Scroll to the next Primary tone. The Z3 Siren will remain in the newly selected tone. The Z3 Siren will Scroll from Wail to Yelp to Alt and then back to Wail. Holding the MANUAL push-button for greater than a half second will cause the Z3 Siren to generate the Air Horn.
 - Manual Wail – The Z3 Siren will ramp up as long as the MANUAL push-button is pressed and the ramp down when it is released. The Z3 Siren will return to the Primary tone.
 - Wail Stop – The Z3 Siren will ramp up as long as the MANUAL push-button is pressed and stop generating the tone when it is released. The Z3 Siren will return to the Primary tone.
 - **Hands-Free Function –**
 - None – The MANUAL push-button will be disabled in the Hands-Free mode.
 - Scroll – The MANUAL push-button will operate like the Horn Ring Scroll (see Horn Ring for details).
 - Manual Wail – The Z3 Siren will ramp up as long as the MANUAL push-button is active and the ramp down when it is released.
 - Wail Stop – The Z3 Siren will ramp up as long as the MANUAL push-button is active and stop generating the tone when it is released.
 - **Siren Inactive Function –**
 - None – The MANUAL push-button will be disabled in the Siren Inactive mode.
 - Manual Wail – The Z3 Siren will ramp up as long as the MANUAL push-button is active and the ramp down when it is released.
 - Wail Stop – The Z3 Siren will ramp up as long as the MANUAL push-button is active and stop generating the tone when it is released.
 - **Activates –** The MANUAL push-button can activate the 3-Level Switch and any of the eight Auxiliary push-buttons. These settings are assigned to the Manual Wail and Wail Stop tones and not just the MANUAL push-button. So these settings will also be used if the Horn Ring or Remote are configured to generate the Manual Wail or Wail Stop tones.
- NOTE:** Setting the 3-Level Switch option in this section may affect the function of the 3-Level Switch (see the 3-Level Switch section for details).

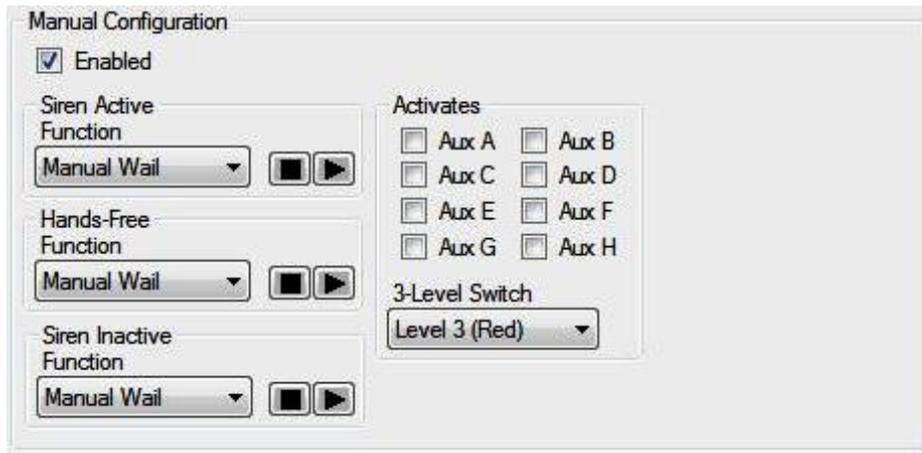


Figure 17

AIR HORN

Pressing the AIR HORN push-button will generate the Air Horn tone until the push-button is released. It can be configured for the following functions (see Figure 18):

- **Enable –**
 - Always Enabled – The AIR HORN push-button will be enabled in all modes of operation including when the vehicle is in park.
 - Disabled when Siren or Lights Active – The AIR HORN push-button will be disabled whenever the 3-Level Switch is active or when any Primary tone is being generated. This setting configures the AIR HORN push-button to meet California Title 13.
 - Always Disabled – The AIR HORN push-button will not function.
- **Primary Tone –**
 - Air Horn 1 – The AIR HORN push-button will generate the Air Horn 1 tone as long as it is active.
 - Air Horn 2 – The AIR HORN push-button will generate the Air Horn 2 tone as long as it is active.

NOTE: The AIR HORN push-button is automatically configured to 'Disabled when Siren or Lights Active' when the CA Title 13 is selected (see General Configuration section).

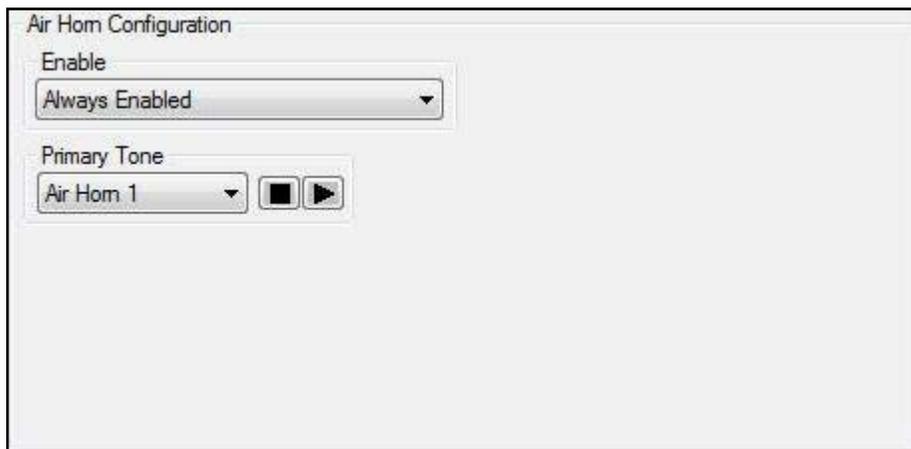


Figure 18

Auxiliary A through H

There are eight Auxiliary push-buttons. Each push-button can be individually configured to set the function and which outputs are activated by the push-button. All eight Auxiliary push-buttons can be disabled at all times or disabled when the vehicle ignition is off.

AUX A through AUX F can be configured for the following functions (see Figure 19):

- **Function –**

- Momentary – The Auxiliary output will be active as long as the push-button is pressed.
- Toggle On/Off – The Auxiliary output will turn on when the push-button is pressed and will turn off when the push-button is pressed a second time.
- 8 Sec Timed – The Auxiliary output will be active for 8 seconds every time the push-button is pressed.
- Hands-Free – The Z3 Siren will enter the Hands-Free mode of operation whenever the push-button is active and the output for the Auxiliary push-button will on. During Hands-Free mode, pressing the vehicle horn ring will cause the Z3 Siren to Scroll through the Primary siren tones starting with Wail. The Auxiliary button can also be configured so that when operating in Hands-Free mode the Z3 Siren will turn on the 3-Level Switch outputs with the Primary tones.

NOTE: Setting the 3-Level Switch option in this section may affect the function of the 3-Level Switch (see the 3-Level Switch section for details).

- RRB – The Z3 Siren will enter the Radio Rebroadcast mode of operation whenever the push-button is active and the output for the Auxiliary push-button will on. The Z3 Siren will ReBroadcast the Radio through the siren speakers. The Radio signal must be wired to the RRB1 and RRB2 wires on the Z3 Siren (see the Installation and Operation Manual for details). RRB will override all siren tones when it is active.

- **Activates –**

- Each Auxiliary push-button will activate the output directly associated with it and can be configured to activate any other Auxiliary push-button. Example: Auxiliary A will always activate the Auxiliary A output, but can be configured to also activate the Auxiliary B push-button and output. Any Auxiliary push-button activated by another Auxiliary push-button can be manually shut off or will automatically shut off when the controlling push-button is turned off.

- **Disabled with ignition –**

- Each Auxiliary push-button can be disabled when the vehicle ignition is turned off. This is designed to work with the Sleep Mode. When the ignition is off and the Z3 Siren is in Sleep Mode, all outputs and functions will operate except for any Auxiliary push-buttons that are disabled with ignition.

AUX A – AUX F

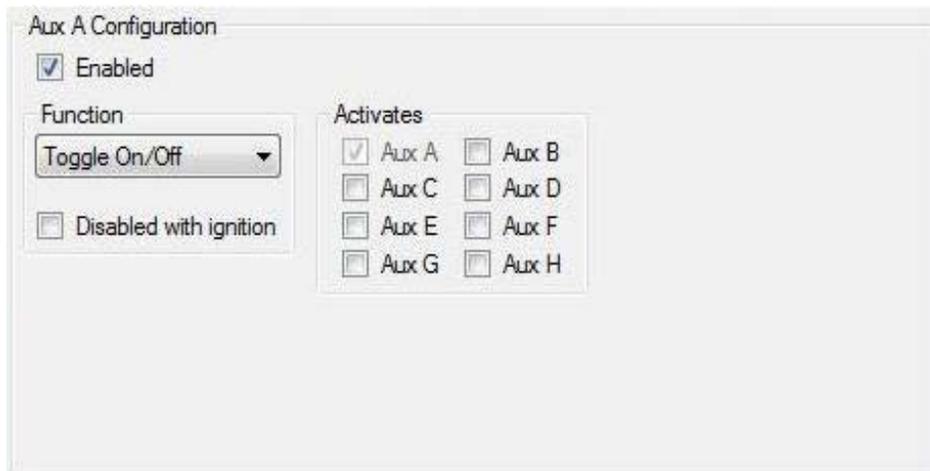


Figure 19

AUX G – AUX H

Auxiliary push-buttons G and H can be configured with the same features as the Auxiliary A through H push-buttons. These two push-buttons can also be configured for Polarity. This allows the Auxiliary G and H outputs to be configured to provide a +12VDC signal or to pull the output to Ground (see Figure 20).

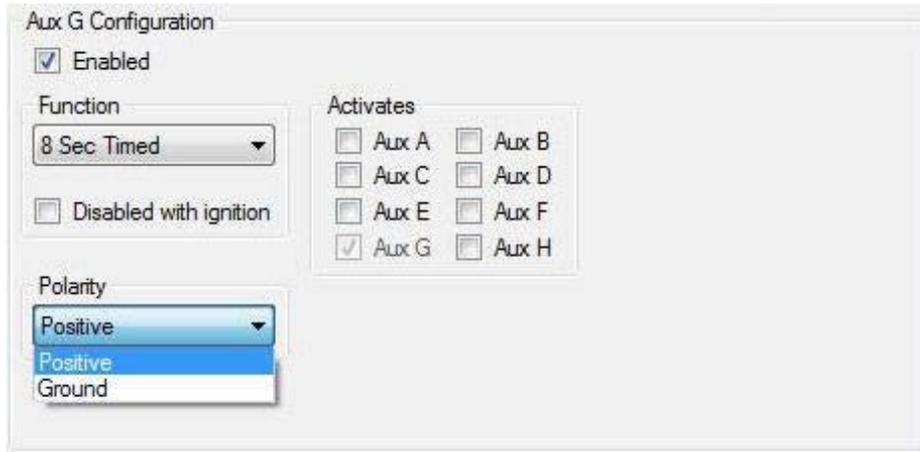


Figure 20

LEFT

The LEFT push-button will activate the Left Arrow output in the four pin ArrowStik connector on the Z3 Siren. This output is designed to operate a Centrally Controlled ArrowStik. Activating the LEFT push-button will automatically turn off the CENTER, RIGHT, or FLASH push-buttons. The LEFT push-button can also be configure to operate a conventional ArrowStik. To configure these settings, the Z3 Siren must be configured to operate a 5, 6, or 8 head conventional ArrowStik (see the ArrowStik section in General Configuration).

It can be configured for the following functions (see Figure 21):

- **Pattern –**
 - Build Collapse – The ArrowStik will light each light head one at a time until all are lit. It will then turn off each light head until all are off.
 - Building – The ArrowStik will light each light head one at a time until all are lit. It will then turn all off.
 - Building - 3 Flash – The ArrowStik will light each light head one at a time until all are lit. After all light heads are lit, the final Light head will flash three times. It will then turn all off.
 - Traveling Ball - 3 Flash – The ArrowStik will light each light head one at a time. The last light head will flash three times.
- **Rate –**
 - Slow – A slow speed ArrowStik pattern.
 - Medium – A medium speed ArrowStik pattern.
 - Fast – A fast speed ArrowStik pattern.

NOTE: The ArrowStik indicators will flash as an example of the pattern and rate that is selected. This is only an example and may not represent the actual speed of the ArrowStik. The Z3 Control Head will flash the indicator LEDs in the same way.



Figure 21

CENTER

The CENTER push-button will activate the Left and Right Arrow outputs in the four pin ArrowStik connector on the Z3 Siren. This output is designed to operate a Centrally Controlled ArrowStik. Activating the CENTER push-button will automatically turn off the LEFT, RIGHT, or FLASH push-buttons. The CENTER push-button can also be configured to operate a conventional ArrowStik. To configure these settings, the Z3 Siren must be configured to operate a 5, 6, or 8 head conventional ArrowStik (see the ArrowStik section in General Configuration).

It can be configured for the following functions (see Figure 22):

- **Pattern –**
 - Build Collapse – The ArrowStik will light each light head one at a time until all are lit. It will then turn off each light head until all are off.
 - Building – The ArrowStik will light each light head one at a time until all are lit. It will then turn all off.
 - Building - 3 Flash – The ArrowStik will light each light head one at a time until all are lit. After all light heads are lit, the first and last Light heads will flash three times. It will then turn all off.
 - Traveling Ball - 3 Flash – The ArrowStik will light each light head one at a time. The first and last light head will flash three times.
- **Rate –**
 - Slow – A slow speed ArrowStik pattern.
 - Medium – A medium speed ArrowStik pattern.
 - Fast – A fast speed ArrowStik pattern.

NOTE: The ArrowStik indicators will flash as an example of the pattern and rate that is selected. This is only an example and may not represent the actual speed of the ArrowStik. The Z3 Control Head will flash the indicator LEDs in the same way.

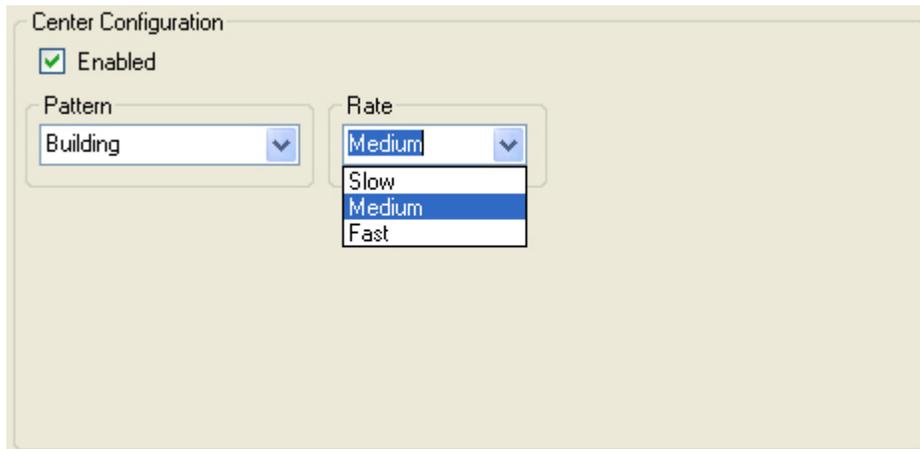


Figure 22

RIGHT

The RIGHT push-button will activate the Right Arrow output in the four pin ArrowStik connector on the Z3 Siren. This output is designed to operate a Centrally Controlled ArrowStik. Activating the RIGHT push-button will automatically turn off the LEFT, CENTER, or FLASH push-buttons. The RIGHT push-button can also be configured to operate a conventional ArrowStik. To configure these settings, the Z3 Siren must be configured to operate a 5, 6, or 8 head conventional ArrowStik (see the ArrowStik section in General Configuration).

It can be configured for the following functions (see Figure 23):

- **Pattern –**
 - Build Collapse – The ArrowStik will light each light head one at a time until all are lit. It will then turn off each light head until all are off.
 - Building – The ArrowStik will light each light head one at a time until all are lit. It will then turn all off.
 - Building - 3 Flash – The ArrowStik will light each light head one at a time until all are lit. After all light heads are lit, the final Light head will flash three times. It will then turn all off.
 - Traveling Ball - 3 Flash – The ArrowStik will light each light head one at a time. The last light head will flash three times.
- **Rate –**
 - Slow – A slow speed ArrowStik pattern.
 - Medium – A medium speed ArrowStik pattern.
 - Fast – A fast speed ArrowStik pattern.

NOTE: The ArrowStik indicators will flash as an example of the pattern and rate that is selected. This is only an example and may not represent the actual speed of the ArrowStik. The Z3 Control Head will flash the indicator LEDs in the same way.



Figure 23

FLASH

The FLASH push-button will activate the Flash Arrow output in the four pin ArrowStik connector on the Z3 Siren. This output is designed to operate a Centrally Controlled ArrowStik. Activating the FLASH push-button will automatically turn off the LEFT, RIGHT, or CENTER push-buttons. The RIGHT push-button can also be configured to operate a conventional ArrowStik. To configure these settings, the Z3 Siren must be configured to operate a 5, 6, or 8 head conventional ArrowStik (see the ArrowStik section in General Configuration).

It can be configured for the following functions (see Figure 24):

- **Pattern –**
 - Standard – The first, last and two middle lamps alternate with all other lamps.
 - Simultaneous – All Light heads turn on and off at the same time.
 - Even/Odd – The even numbered lamps alternate with the odd numbered.
 - Left/Right – The Left side lamps alternate with the right side.
 - Traveling Ball – The light heads will flash one at a time in a sweeping pattern.
- **Rate –**
 - Single Flash 75 FPM – All lamps single flash at 75 flashes per minute.
 - Single Flash 110 FPM – All lamps single flash at 110 flashes per minute.
 - Single Flash 220 FPM – All lamps single flash at 220 flashes per minute.
 - Quad Flash – All lamps Quad Flash (not available in Traveling Ball pattern).

NOTE: The ArrowStik indicators will flash as an example of the pattern and rate that is selected. This is only an example and may not represent the actual speed of the ArrowStik. The Z3 Control Head will flash the indicator LEDs in the same way.

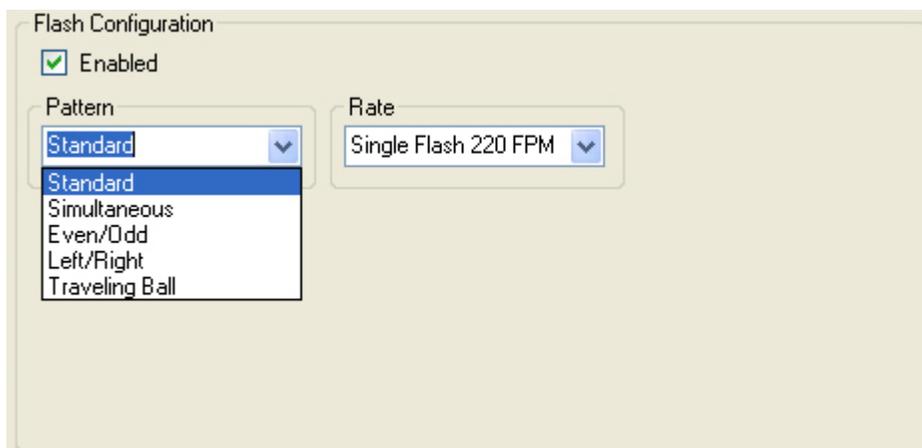


Figure 24

DIM

The DIM push-button is used to dim the light bar and does not have any configuration options. It can only be activated when the 3-Level Switch is in Level 1, 2 or 3 or any ArrowStik push-button is active.

NOTE: If the 3-Level Switch position is changed, the DIM push-button will automatically turn off.

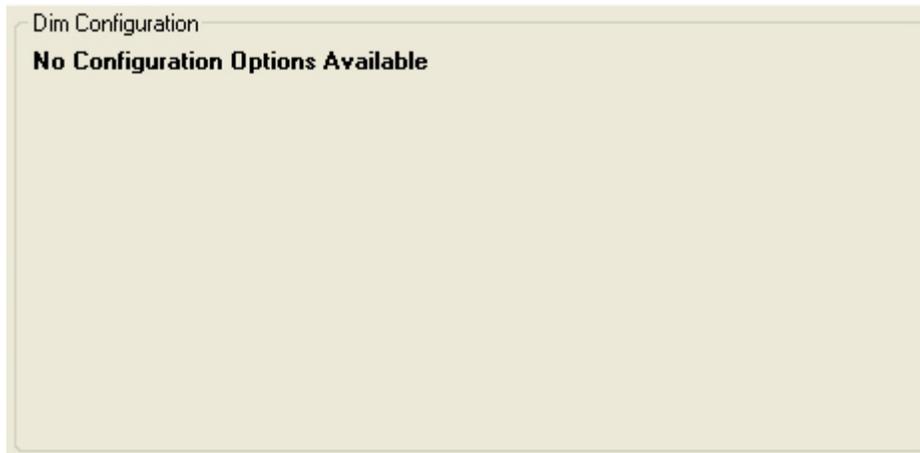


Figure 25

NOTES

Manufacturer Limited Warranty Policy:

Manufacturer warrants that on the date of purchase this product will conform to Manufacturer's specifications for this product (which are available from the Manufacturer upon request). This Limited Warranty extends for Sixty (60) months from the date of purchase.

DAMAGE TO PARTS OR PRODUCTS RESULTING FROM TAMPERING, ACCIDENT, ABUSE, MISUSE, NEGLIGENCE, UNAPPROVED MODIFICATIONS, FIRE OR OTHER HAZARD; IMPROPER INSTALLATION OR OPERATION; OR NOT BEING MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE PROCEDURES SET FORTH IN MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS VOIDS THIS LIMITED WARRANTY.

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This Limited Warranty defines specific legal rights. You may have other legal rights which vary from jurisdiction to jurisdiction. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages.

Product Returns:

If a product must be returned for repair or replacement*, please contact our factory to obtain a Return Goods Authorization Number (RGA number) before you ship the product to Code 3®, Inc. Write the RGA number clearly on the package near the mailing label. Be sure you use sufficient packing materials to avoid damage to the product being returned while in transit.

*Code 3®, Inc. reserves the right to repair or replace at its discretion. Code 3®, Inc. assumes no responsibility or liability for expenses incurred for the removal and /or reinstallation of products requiring service and/or repair.; nor for the packaging, handling, and shipping; nor for the handling of products returned to sender after the service has been rendered.



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