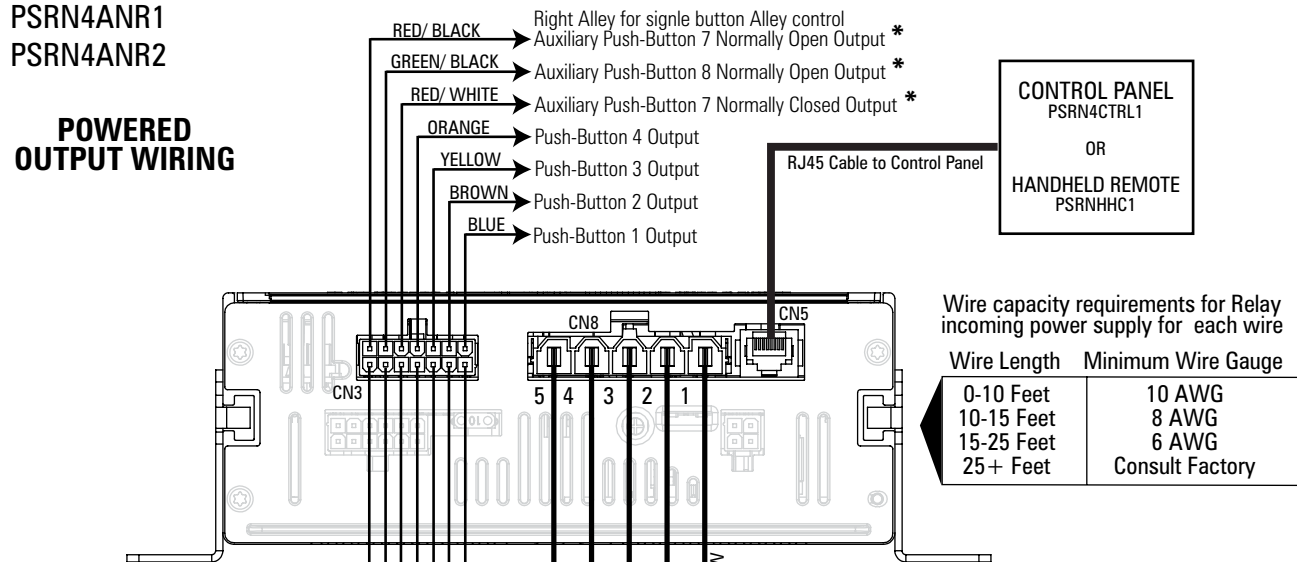


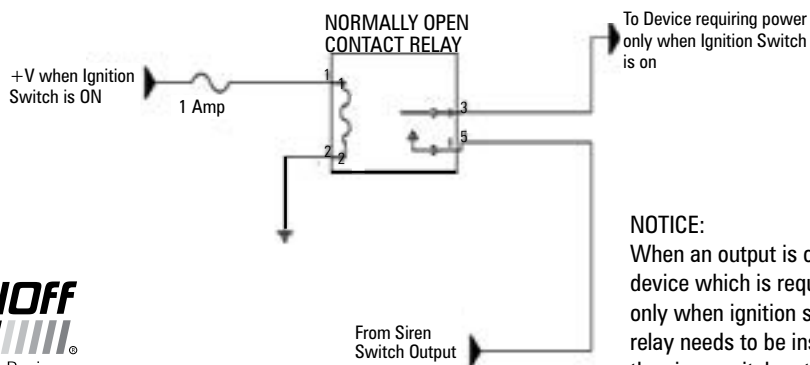
400 SERIES AMPLIFIER BOX

PSRN4ANR1
PSRN4ANR2

POWERED OUTPUT WIRING



- * Auxiliary Push Button #8 Normally Closed Output → GREEN/WHITE
- Not used → GREEN
- * Relay #8 Input → GREEN
- * Relay #7 Input → RED
- Relay #9 Output for 2 wire Arrow Control Interface → GREY
- Auxiliary Push Button #6 Output → VIOLET
- Auxiliary Push Button #5 Output → WHITE



NOTICE:
When an output is connected to a device which is required to function only when ignition switch is ON, a relay needs to be installed in-line with the siren switch output to ensure an operator can't activate the device without the ignition switch ON.
See wiring diagram details:

Wire capacity requirements for Relay incoming power supply for each wire

Wire Length	Minimum Wire Gauge
0-10 Feet	10 AWG
10-15 Feet	8 AWG
15-25 Feet	6 AWG
25+ Feet	Consult Factory

FUSE CHART	
LOCATION	RATING
FB-8	10A
FB-7	10A
FB-4	10A
FB-3	10A
FB-2	10A
FB-1	10A
FB-5	10A
FB-6	10A
FB-9	10A
FS-1	20A
FS-2	20A
FS-3	20A

Internal Relay Board Fuse replacement:

To replace fuses:

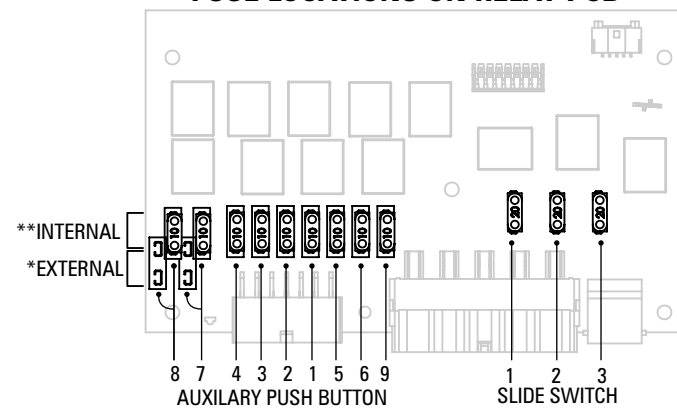
1. Remove power connectors CN8 and CN6 or remove power to unit.
2. Remove unit from console or obtain access to full top of unit.
3. Depress snaps on top cover and lift open.
4. See chart below for output fuse locations and ratings.
5. Fuse Ratings: Replace with same rated part.
6. Close cover, reinstall connectors and reinstall unit in console.

The button outputs 7 and 8 have the ability to receive power from an independent external power source or from the internal +V as supplied to CN8. Both of these outputs use a separate internal 10A mini-ATO fuse which rely on position to determine the source selection. Each fuse may be placed in one of 2 locations. See diagram below.

* If the fuse is placed in the fuse holder near the back edge of the PCB that output will be powered from an external source, labeled "relay #(x) input" on CN3.

** If the fuse is placed in the fuse holder away from the back edge of the PCB that output will be powered from the internal +V source that comes from CN8 pin 5.

FUSE LOCATIONS ON RELAY PCB



Slide Switch Level Outputs 1-3 and Button Outputs 1-6 are active high (vehicle supply level).

NOTE:
* = Not used on Hand Held Version



HANDHELD REMOTE

PSRNHHC1

PROGRAMMING MANUAL



LEGEND:

ON = ●

NOTE:

For All programming modes: Momentarily depress Radio Rebroadcast push-button to save and exit.

To hear samples of all the tones available go to www.soundsignal.com website.

Denotes Factory Default Setting

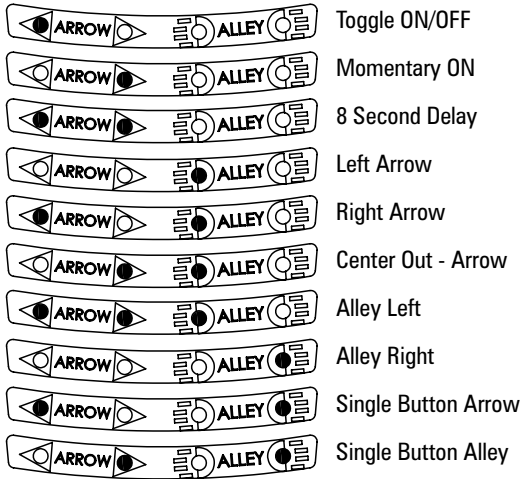
Programming Modes

Auxiliary Button Programming:

1. Press and Hold Auxiliary Button #1 and #6 until Level 1 LED Flashes.
2. Press the auxiliary button which setting is going to be viewed/changed.
3. Monitor the Arrow/Alley LED's to determine setting for Auxiliary Button



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4. Press and release Auxiliary Button until desired mode is selected.
5. Continue steps 2-4 for any other Auxiliary Buttons needing to be programmed.

Slide Switch Mode:

1. Press and Hold Auxiliary Button #1 and #4 until Level 2 LED flashes.
2. Press Auxiliary switch 1, 2, or 3 depending on required mode of operation.

Aux 1: Progressive 1,2,3
 Level 1 selected: Active Outputs: 1
 Level 2 selected: Active Outputs: 1,2
 Level 3 selected: Active Outputs: 1,2,3

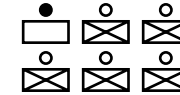
Aux 2: Progressive 1,2,3 with option to turn off lower levels
 Level 1 selected: Active Outputs: 1
 Level 2 selected: Active Outputs: 1,2 (Level 1 may be turned OFF)
 Level 3 selected: Active Outputs: 1,2,3 (Level 1 and 2 may be turned OFF)

Aux 3: Individual 1,2,3
 Level 1 selected: Active Outputs: 1
 Level 2 selected: Active Outputs: 2
 Level 3 selected: Active Outputs: 3

Input Settings:

1. Press and Hold Auxiliary Button #1 and #3 until LEVEL #3 LED flashes.

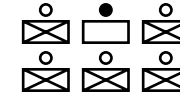
1. Park Kill Polarity Mode: Determines what voltage level will activate park kill functions. Disables AUX Input



ON = Activated when Ground is applied to Park Kill input wire.

OFF = Activate when +V is applied to Park Kill input wire

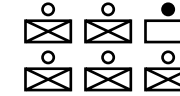
2. Horn Ring Polarity Mode: Determines what voltage level will activate Horn Ring functions.



ON = Activated when Ground is applied to Horn Ring input wire.

OFF = Activated when +V is applied to Horn Ring input wire.

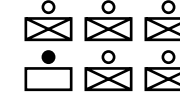
3. PA Volume Control (see Setting PA Volume)



ON = RR Button Adjustable

OFF = Programmed

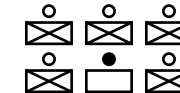
4. Level 3 Tone Activation: Determines when the siren tone push-buttons on control panel are enabled.



ON = Tone push buttons always enabled

OFF = Tone push button only enabled with slide switch is in position #3.

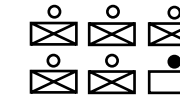
5. 8 Second Buzzer alert: Provides audible beep when ever any auxiliary switches are ON or level 1, 2 or 3 is active.



ON = Enabled

OFF = Disabled

6. Air Horn Button Output Channels

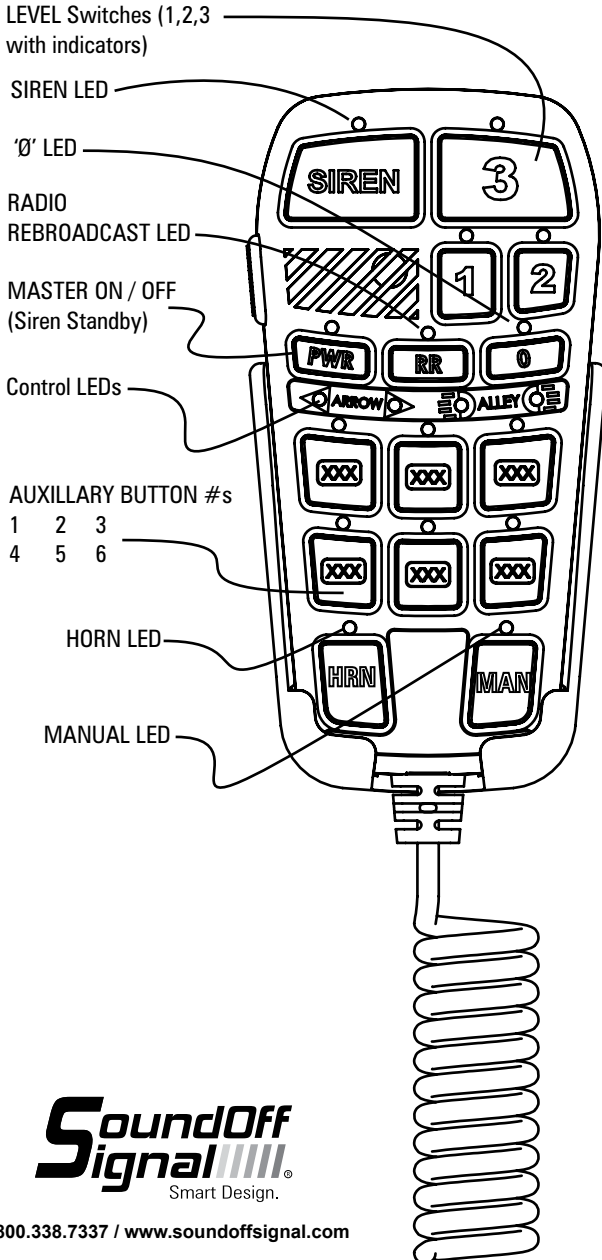


ON = In standby mode, Air Horn tone is output on Spkr A & B. When Warning Tone is Active, Warning Tone continues on Spkr A & Air Horn Button Tone is output on Spkr B

OFF = Air Horn Button Tone always produced on Spkr A & B.

HANDHELD REMOTE

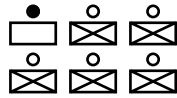
PSRNHHC1



Other Modes:

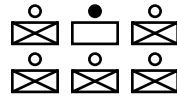
1. Press and Hold Auxiliary Button #1 and #5 until LEVEL #1 and LEVEL #3 indicator LED flashes.

1. Horn Ring Activation: Determines when pressing the Vehicle Horn will activate siren to



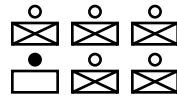
ON = Enabled only when level 3 is activated.
OFF = Enabled whenever siren is on.

2. Buzzer: Audible tone from control panel whenever operator presses push-button or changes position of slide/rotary switch.



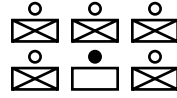
ON = Enabled
OFF = Disabled

3. Park Kill Latch: When Park Kill input is triggered, determines how siren tone proceeds once park kill input is no longer active.



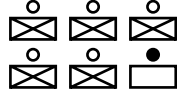
ON = Tone remains disabled until operator selects other tone.
OFF = Tone resumes once Park Kill input is no longer active

4. Power Down: Determines whether siren will operate when ignition input has no voltage



ON = Siren will operate w/o voltage on ignition input
OFF = Siren is disabled when no voltage is present on ignition input

5. Auxiliary Input: Determines which siren tone will activate when auxiliary input is activated.



ON = Air Horn tone
OFF = Tone which is programmed on Wail push-button

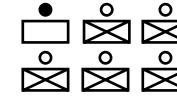
2. When finished, momentarily depress Radio Rebroadcast (RR) button to exit programming mode.

	ALTERNATE HORN RING CONTROL			
	OPTION 1	OPTION 2		
STANDBY	OEM HORN	OEM HORN		
LEVEL 1	OEM HORN	OEM HORN		
LEVEL 2	Air Horn or Wail Button Tone while Pressed *	Tap to Turn On Warning Tone, Tap again to Change Warning Tone. Press and Hold for Air Horn Tone		
LEVEL 3	Tap to turn ON Warning Tone, Tap again to change Warning Tone. Press and Hold for Air Horn Tone	<table border="1"> <tr> <td>TOGGLE SWITCH OFF: Air Horn Tone or Wail Button Tone while Pressed *</td> <td>TOGGLE SWITCH ON: Tap to change Warning Tone, Press and Hold for Air Horn Tone</td> </tr> </table>	TOGGLE SWITCH OFF: Air Horn Tone or Wail Button Tone while Pressed *	TOGGLE SWITCH ON: Tap to change Warning Tone, Press and Hold for Air Horn Tone
TOGGLE SWITCH OFF: Air Horn Tone or Wail Button Tone while Pressed *	TOGGLE SWITCH ON: Tap to change Warning Tone, Press and Hold for Air Horn Tone			

* Set in "Horn Ring Program" 3. Horn Ring Standby Tone

Horn Ring Program:

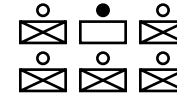
1. Press and Hold Auxiliary Button #3 and #4 until 'Ø' LED flashes.



ON = Tone will advance through tones programmed on Wail, Yelp, and Tone push-buttons each time vehicle horn is pressed.

OFF = Tone will advance through tones programmed on Wail and Yelp push-buttons each time the vehicle horn is pressed.

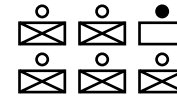
2. Hands Free Mode: (Alternate Horn Ring Control Must be Disabled) Activates the siren tone when operator momentarily presses on Vehicle Horn.



ON = Enabled

OFF = Disabled

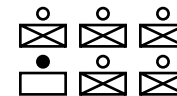
3. Horn Ring Standby Tone: (Hands Free Mode must be disabled for this function to work). (Alternate Horn Ring Control Must be Disabled). Determines which tone to output when siren is in standby and vehicle horn is pressed.



ON = Air Horn Tone

OFF = Wail Tone

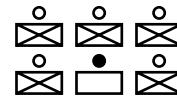
4. Horn Ring Timeout: (Alternate Horn Ring control must be disabled and hands free mode must be enabled for function to have any effect). When vehicle horn is pressed and tone changes, determines how tone will change back to pre-vehicle horn press tone.



ON = Siren tone will revert back to pre-vehicle horn tone after 8 seconds.

OFF = Siren tone will not revert back to pre-vehicle horn press tone.

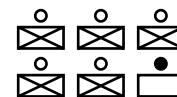
5. Alternate Horn Ring Control: Custom operation of vehicle horn when pressed. Refer to figure left for details.



ON = Enabled

OFF = Disabled

6. Alternate Horn Ring Control Option: (Alternate Horn Ring Control must be enabled). Custom operation of vehicle horn when pressed. Refer to figure left for details.



ON = Option 2

OFF = Option 1

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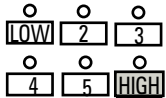
Setting PA Volume:

1. PA Volume Control (see **Input Settings**, 1-3)

If set to "Programmed"

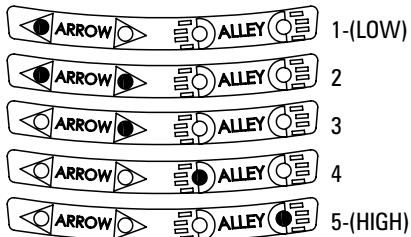
Check:

- Press and Hold Auxiliary Button #1 and #2 until LEVEL #2 and LEVEL #3 LED flashes.
 - Depress and hold PA switch on microphone and press Pushbutton 1-6 depending on volume required. When correct volume is determined, press Radio Rebroadcast and the volume setting will be permanently stored.



If set to "RR Button Adjustable"

3. Momentarily press RR Button to select PA Volume. PA Volume will be displayed on indicators below RR Button.



AUXILIARY AND LEVEL SWITCH LED INDICATORS:

LED INDICATOR	CONDITION
OFF	RELAY OUTPUT IS OFF
ON	RELAY OUTPUT IS ON
FLASHING	RELAY OUTPUT HAS A FAULT



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SIREN AMPLIFIER DIAGNOSTIC INDICATORS:

POWER LED	SIREN LED	HORN LED	MANUAL LED	CONDITION
ON	FLASHING	ON	ON	OVER-TEMPERATURE (380R ONLY)
ON	FLASHING	OFF	ON	UNDER-VOLTAGE
ON	FLASHING	ON	OFF	OVER-VOLTAGE
ON	FLASHING	FLASHING	-	COMM FAULT - RELAY
ON	FLASHING	-	FLASHING	COMM FAULT - AMP
ON	FLASHING	FLASHING	FLASHING	COMM FAULT -RELAY AND AMP
ON	OFF	-	-	STANDBY MODE
OFF	ON	ON	-	SPKR 1 IS ACTIVE
OFF	ON	OFF	-	SPKR 1 IS NOT-FUNCTIONING
OFF	ON	-	ON	SPKR 2 IS ACTIVE
OFF	ON	-	OFF	SPKR 2 IS NOT-FUNCTIONING

Tones Program:

- Press and Hold Buttons #2 and #5 until Level 1, Level 2 and Level 3 LEDs flash.
- Press SIREN button to program the tones (each press of the SIREN button will advance to next TONE mode). Note: in operation, each press of the SIREN button will scroll between the 3 programmed tones.
- SIREN Mode**
 SIREN LED: Siren Tone #1
 PWR LED: Siren Tone #2
 SIREN LED and PWR LED: Siren Tone #3
- Press Auxiliary Buttons to get required tone

5. HORN Button:

Press Horn Button and HORN 1 LED will turn ON
Press Auxiliary Buttons to get required tone.

6. Man Button:

Press MAN Button and MANUAL LED will turn ON
Press Auxiliary Buttons to get required tone.

MANUAL BUTTON TONE DURATION

MOMENTARY: When played solo

LATCHED: When played over other tones.

Tone #1

AUX BUTTON #4	AUX BUTTON #5	AUX BUTTON #6	PRIMARY SPKR 1 TONE	SECONDARY SPKR 2 TONE
OFF	OFF	OFF	Disabled	Disabled
OFF	OFF	ON	WAIL 1	WAIL 2
OFF	ON	OFF	Yelp 1	Yelp 2
OFF	ON	ON	ALERT A	YELP 1
ON	OFF	OFF	Piercer 1	Yelp 1
ON	OFF	ON	HiLo	Super HiLo Tone
ON	ON	OFF	Super HiLo Tone	Super HiLo Tone
ON	ON	ON	Cycle Tone (Wail 1, Yelp 1, Alert A, Piercer)	Cycle Tone (Yelp 1, Alert A, Piercer, Yelp 1)

Tone #2

AUX BUTTON #4	AUX BUTTON #5	AUX BUTTON #6	PRIMARY SPKR 1 TONE	SECONDARY SPKR 2 TONE
OFF	OFF	OFF	Disabled	Disabled
OFF	OFF	ON	WAIL 1	WAIL 2
OFF	ON	OFF	Yelp 1	Yelp 1
OFF	ON	ON	ALERT A	YELP 1
ON	OFF	OFF	Piercer 1	Yelp 1
ON	OFF	ON	HiLo	Super HiLo Tone
ON	ON	OFF	Super HiLo Tone	Wail 1
ON	ON	ON	Cycle Tone (Wail 1, Yelp 1, Alert A, Piercer)	Cycle Tone (Yelp 1, Alert A, Piercer, Yelp 1)

Tone #3

AUX BUTTON #4	AUX BUTTON #5	AUX BUTTON #6	PRIMARY SPKR 1 TONE	SECONDARY SPKR 2 TONE
OFF	OFF	OFF	Disabled	Disabled
OFF	OFF	ON	WAIL 1	WAIL 2
OFF	ON	OFF	Yelp 1	Yelp 2
OFF	ON	ON	ALERT A	YELP 1
ON	OFF	OFF	Piercer 1	Wail1
ON	OFF	ON	HiLo	Wail 1
ON	ON	OFF	Super HiLo Tone	Piercer 1
ON	ON	ON	Cycle Tone (Wail 1, Yelp 1, Alert A, Piercer)	Cycle Tone (Yelp 1, Alert A, Piercer, Yelp 1)

HORN BUTTON

BUTTON #4	BUTTON #5	BUTTON #6	SPKR 1 TONE	SPKR 2 TONE
OFF	OFF	OFF	HORN 1	HORN 1
OFF	OFF	ON	HORN 2	HORN 2
OFF	ON	OFF	HORN 3	HORN 3
OFF	ON	ON	HORN 4	HORN 4
ON	OFF	OFF	HORN 1	HORN 2
ON	OFF	ON	HORN 2	HORN 3
ON	ON	OFF	HORN 3	HORN 4
ON	ON	ON	HORN 4	HORN 2

MANUAL BUTTON (SOLO PLAY ONLY)

BUTTON #4	BUTTON #5	BUTTON #6	SPKR 1 TONE	SPKR 2 TONE
OFF	OFF	OFF	WAIL 1 (W/FREQ. DECREASE)	WAIL 1 (W/FREQ. DECREASE)
OFF	OFF	ON	WAIL 1 (IMMEDIATE OFF)	WAIL 1 (IMMEDIATE OFF)
OFF	ON	OFF	YELP 1	YELP 1
OFF	ON	ON	PIERCER	PIERCER
ON	OFF	OFF	ALERT A	ALERT A
ON	OFF	ON	HiLo	HiLo
ON	ON	OFF	SUPER HiLo	SUPER HiLo
ON	ON	ON	WAIL 1 (IMMEDIATE OFF)	WAIL 1 (IMMEDIATE OFF)

Level Switch Mapping:

1. Press Auxiliary Buttons #4 and #5 until RR LED Flashes
2. Press Level 1,2, or 3 switch to select level to be programmed
3. Press Auxiliary Buttons #1-#6 as required. LED ON = function will turn ON when Level is active

Default - All level #'s produce no tone

4. Press siren button for desired tone to be generated for level

Alley Left = Tone 1
 Alley right = Tone 2
 Alley Left and Right = Tone 3

Setting Backlight/Indicator LED Intensity:

1. Press and Hold Radio Rebroadcast (RR) Button.
2. Then press Aux Buttons 1-6 to select intensity.
 - 1 = Low Intensity
 - 6 = High Intensity

