400 SERIES CONSOLE SIREN ROTARY OR PUSH-BUTTON USER INTERFACE

ETSA481CSP - 100W

ETSA482CSP - 200W

ETSA481CSR - 100W

ETSA482CSR - 200W



plain site of operator and occupants of the vehicle

1 ea. Label Card for Aux. Switches

1 ea. Operators Warning Card to remain

in vehicle for operator review

1 ea. Sound Pressure Warning Label that

is to be attached in vehicle and in

1 ea. Mounting Bracket with Hardware

Package Contents:

1 ea. Console Siren

Please see page 3 for **Technical Specifications**

Distributed By:



WARNING

Sirens produce loud sounds that may damage hearing:

- Roll up windows.Wear hearing protection.
- Use only for emergency response.
 Avoid exposure to siren sound
- outside of vehicle.





IMPORTANT NOTICE TO INSTALLER:

Make sure to read and understand all instructions and warnings before proceeding with the installation of this product. Ensure the manual and all warning cards are delivered to the end user of this equipment.

Introduction

The ETSA48(1,2)CS(R,P) is a console (DASH) mounted all in one siren and light controller. It comes in 4 styles differing in the user interface method and the amount of speaker power available. This siren can also drive a variety of programmable powered control lines capable of up to nine 10A and three 20A circuits.

Notice

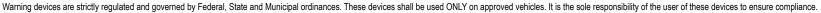
Sirens provide an essential function of an effective audio / visual warning system. However, sirens are only short range secondary devices. The use of a siren does not insure that all drivers can or will abide by or react to an emergency warning signal, especially at high rates of speeds or long distances. The operator of the vehicle must never take the right of way for granted and it is the operator's responsibility to proceed safelv.

The effectiveness of this siren system is highly dependant on the correct mounting and wiring. The installer must read and follow the manufacturer's installation instructions and warnings in the manual. The vehicle operator should verify the siren system is securely fastened to the vehicle and properly functioning.

Effective sirens generate loud sound pressure levels that can potentially cause hearing damage. Installers and those around the vehicle need to be aware of the dangers and wear hearing protection whenever the siren system is operating. Vehicle operators and occupants should assess their exposure to siren noise and determine what steps need to be taken to prevent hearing damage.

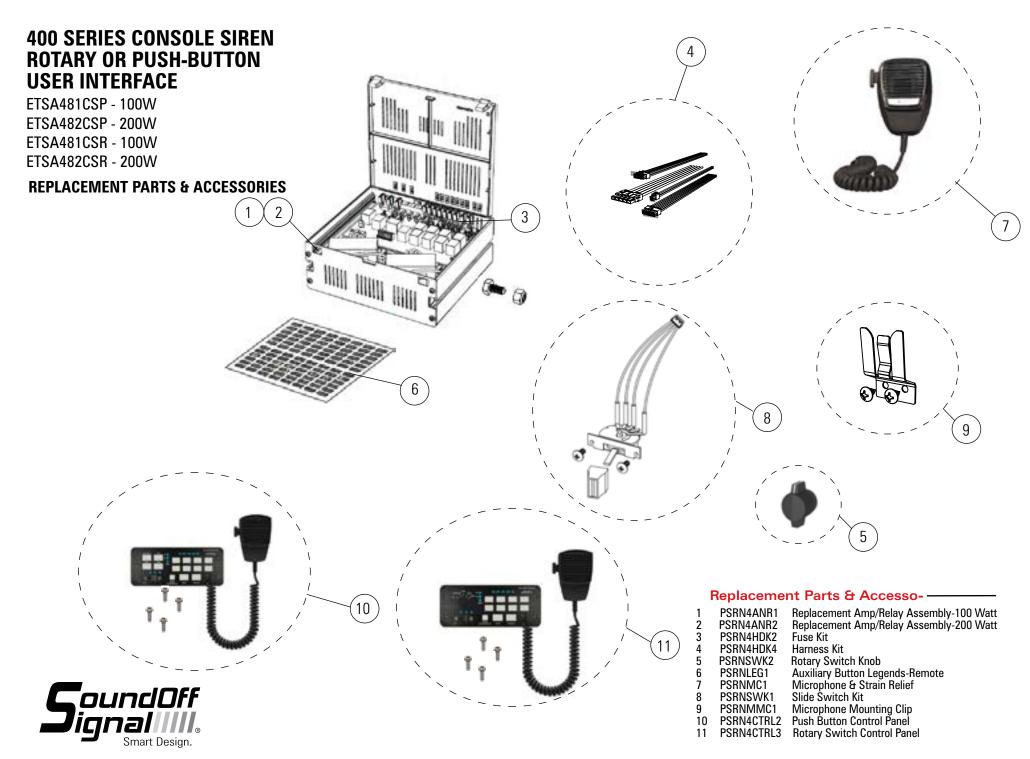
The siren system is intended for use by authorized personnel only. It is the user's responsibility to ensure they understand and operate the emergency warning devices in compliance with all applicable city, state, and federal laws and regulations. SoundOff Signal assumes no liability for any loss resulting from the use of the siren system.

IMPORTANT INFORMATION:



To review our Limited Warranty Statement & Return Policy for this or any SoundOff Signal product, visit our website at www.soundoffsignal.com/sales-support. If you have questions regarding this product, contact Technical Services, Monday - Friday, 8 a.m. to 5 p.m. at 1.800338.7337 (press #4 to skip the automated message). Questions or comments that do not require immediate attention may be emailed to techservices@soundoffsigal.com.

SUPERIOR CUSTOMER RELATIONSHIPS. SMARTLY DESIGNED LIGHTING & ELECTRONIC SOLUTIONS.



400 SERIES AMPLIFIER BOX

PSRN4ANR1 PSRN4ANR2

Operating Modes

The primary operating modes are User Selectable Tone, Yelp, Wail, Radio, PA, Horn Override, and a push-button Manual Override are available in all modes. All tones except Wail and Yelp for California Title 13 compliance may be disabled by programming the siren.

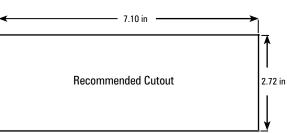


WARNING

Do not install this product or route its wires in the air bag deployment area.

Doing so may cause damage to or reduce effectiveness of the air bag, or create projectile that could cause serious injury or death.

To determine air bag deployment area refer to vehicle manufacturer's manual.



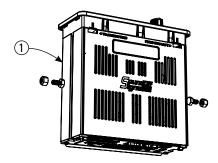


MOUNTING

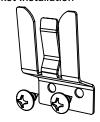
-Siren Installation-

Siren must be mounted using fasteners in the side t-slots. Before drilling holes, check for clearance to prevent damage. Check both sides of the mounting surface before drilling and the be aware of any vehicle components or other vital parts that may be damaged during drilling. Choose a location with adequate air flow as this unit gets warm and relys on cool air. Install grommets in any wire passage holes.

- 1. Slide 1/4" hex head bolts into siren amplifier t-slots.
- 2. Thread ¼" lock nuts onto bolts and tighten to secure siren unit to intended receiver.
- 3. Install amplifier with clearance from other objects for improved ventilation.



-Microphone Bracket Installation-



A metal clip is provided for mounting the microphone. Choose a location convenient to the operator and away from any air bag deployment areas. Using the mounting clip as a template, mark the two holes to be drilled. Using a 1/8" drill bit, drill the two mounting holes. Install the two #6 screws provided with the bracket.

WIRING:

WARNING! All customer supplied wires connecting to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and FUSED at the battery to carry that load.

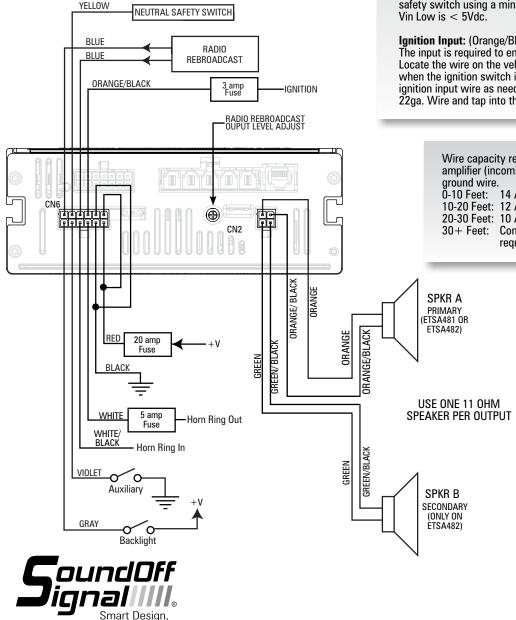
Ensure the siren amplifier / relay unit is mounted in dry, protected environment.

Overall Dimensions: Control Panel: Amplifier/Relay: Input Voltage: Input Voltage: Input Voltage: Diagnostic LEDs: Speaker shorted/open, internal fuses open, communications faults Siren Input Current Input Curren		
Control Panel: Amplifier/Relay: Input Voltage: Boxed Weight: Boxed Weight: Bignostic LEDs: Diagnostic LEDs: Speaker shorted/open, internal fuses open, communications faults Siren Input Current Inp	TECHN	ICAL SPECIFICATIONS
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·		from internal to external via fuse location, see
	Slide Switch Relays:	·

400 SERIES AMPLIFIER BOX

PSRN4ANR1 PSRN4ANR2

SIREN AUDIO WIRING



Park Kill Input: (Yellow Wire)

The input will silence the siren tone when the input wire is activated. The input is typically connected to the transmission neutral safety switch. If this feature is required, the installer needs to determine if the signal wire from the neutral safety switch is switching the +V or ground side of the circuit. Refer to the programming instructions on how to set the park kill polarity on the siren. Extend the park kill input wire from the siren amplifier to the neutral safety switch using a minimum 22ga. Wire. Park kill

Ignition Input: (Orange/Black Wire)

The input is required to enable the siren system. Locate the wire on the vehicle which provides +V when the ignition switch is turned ON. Extend the ignition input wire as needed using a minimum of 22ga. Wire and tap into the vehicle ignition wire.

> Wire capacity requirements for siren amplifier (incoming power)-each supply and

0-10 Feet: 14 AWG 10-20 Feet: 12 AWG 20-30 Feet: 10 AWG

30+ Feet: Consult Factory to determine

requirements

Auxiliary Input: (Violet Wire)

The input is an optional input which will remotely activate the siren when the auxiliary input wire is connected to ground. If this feature is needed, connect the auxiliary input wire to a switch which provides a ground connection when activated. *Park kill disables this option.

Radio Rebroadcast Input: (Blue Wires)

The 2 – 18ga blue wires on the 12 pin Molex connector are used to connect your two-way radio's external speaker through the siren amplifier and broadcast through the warning siren speaker and is optional. Radio Rebroadcast will not work with remotely amplified speakers due to the signal amplitude being too low. Locate the 2 wires that connect the external speaker to the two-way radio. T-tap one blue wire into one of the external speaker wires. T-tap the other blue wire into the other external speaker wire. If the blue wires need to be extended, use a minimum of 20ga. Wire. The Radio Rebroadcast volume must be adjusted prior to placing vehicle into service. Set the volume of the two-way radio to the normal operating level. Press the Radio Rebroadcast push-button on the siren control panel. With a small screwdriver, adjust the radio rebroadcast volume potentiometer located on the back of the siren amplifier to obtain the proper volume out the speaker. Turn potentiometer clockwise to increase volume and counter-clockwise to decrease volume.

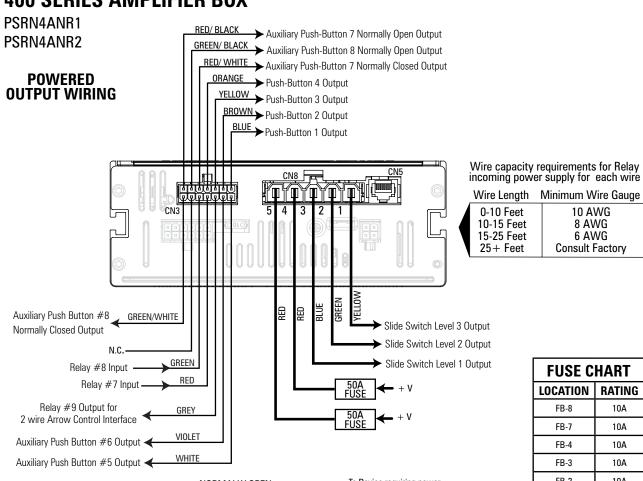
Horn Ring Input: (White + White/Black Wire) The input will allow the operator to control the siren function by pressing the vehicle horn ring. Refer to programming settings for specific configuration options. Refer to wiring diagram for details on how to connect the horn ring input wires to the vehicle's horn ring wiring. If this feature is required, the installer needs to determine if the signal wire from the horn ring is switching the +V or ground side of the circuit. Refer to programming instructions on how to set the horn ring polarity on the siren. Extend the horn ring input wires from the siren amplifier to the horn ring switch using a minimum of 18ga wire. The horn ring circuit is capable of handling a maximum of 5 amps and must be fused by the installer.

Siren Speaker Output: (Orange + Orange/Black Wires), (Green + Green/Black wires) Route the Orange and Orange/Black wires from the 4 position connector to the siren speaker. Use a minimum of 18ga, wire to extend the wires as needed. Connect the Orange wire to the primary Speaker High wire. Connect the Orange/Black wire to the primary Speaker Low wire. For ETSA482 only connect the Green wire to the secondary Speaker High Wire. Connect the Green/Black wire to the secondary Speaker Low Wire.

Backlight Input: (Gray Wire)

The input will turn on the backlighting of the control panel whenever +V is applied to the backlight input wire. Route the siren amplifier backlight input wire to the vehicle's marker light wiring using a minimum of 22ga. wire to extend as needed. T-tap the backlight input wire into the vehicle's marker light +V wire.

400 SERIES AMPLIFIER BOX



To Device requiring power NORMALLY OPEN only when lanition Switch **CONTACT RELAY** is on +V when lanition Switch is ON 1 Amp NOTICE: When an output is connected to a device which is required to function From Siren Switch Output only when ignition switch is ON, a 'oundOff

FUSE CHART LOCATION **RATING** FB-8 10A 10A FR-7 FB-4 10A FR-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

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:

10 AWG

8 AWG 6 AWG

Consult Factory

Internal Relay Board Fuse replacement:

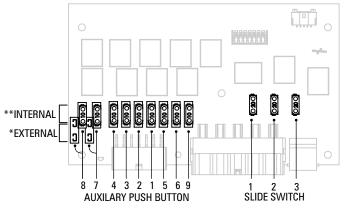
To replace fuses:

- Remove power connectors CN8 and CN6 or remove power to unit.
- Remove unit from console or obtain access to full top of unit.
- Depress snaps on top cover and lift open.
- See chart below for output fuse locations and ratings.
- Fuse Ratings: Replace with same rated part.
- 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.

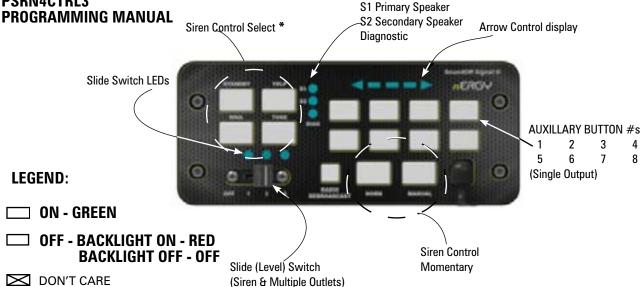
FUSE LOCATIONS ON RELAY PCB



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

CONTROL PANEL PSRN4CTRL2 **PSRN4CTRL3**

PUSH BUTTON (SHOWN BELOW) SIMILAR TO ROTARY SWITCH (NOT SHOWN)



GRAYED AREAS DENOTE FACTORY DEFAULTS

NOTE:

LEGEND:

- A. For All programming modes: Momentarily depress Radio Rebroadcast push-button to exit.
- B. To hear samples of all the tones available go to www. soundoffsignal.com website.
- C. The Push Button version (shown above) works the same as the rotary switch version with 2 exceptions:
 - 1. Gun Release Interlock (Button:STBY; Rotary: RR)
 - 2: Rotary Switch version only Parasidic Current- To place unit in lowest possible current consumption mode (with ignition off), rotary switch must be in "off" position.
- * Siren Control Select for push button or rotary switch versions program the same.



INPUT SETTINGS:

- 1. Press and Hold Auxiliary Button 1 and 3 until slide switch #3 LED flashes.
- 1. Park Kill Polarity Mode: Determines what voltage level will activate park kill functions.
- $\boxtimes\boxtimes$

ON = activated when +V is applied to ParkKill input wire.

OFF = activated when Ground is applied to Park Kill input wire.

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

 \boxtimes $\boxtimes\boxtimes\boxtimes$ ON = activated when +V isapplied to Horn Ring input wire OFF = activated when Ground is applied to Horn Ring input wire

3. Tone Select*: Determines if the Tone Select activation will allow a siren tone to be produced.

 \boxtimes

ON = Tone Push-button Fnabled

 $\boxtimes\boxtimes\boxtimes$

OFF = Tone Push-button Disabled

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

 \bigcirc ON = Tone push-buttons always enabled

OFF = Tone push-buttons only enabled when slide switch is in position #3.

5. 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 press tone after 8 seconds

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

6. Park Kill Latch: When Park Kill input is triggered, determines how siren tone proceeds once park kill input is no longer active. (Disables Auxiliary Input)

ON = Tone remains disabled until operator selects other tone

 $\boxtimes \square \boxtimes \boxtimes$

OFF = Tone resumes once Park Kill input is no longer active

7. Horn Ring Scroll: (Hands Free Mode must be enabled for function to have any effect) Determines how siren tone will change each time the operator presses the vehicle horn.

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

 $oldsymbol{\boxtimes}oldsymbol{\boxtimes}oldsymbol{\boxtimes}$

OFF = Tone will switch between tones programmed on Wail and Yelp pushbuttons each time vehicle horn is pressed

8. Auxiliary Input: Determines which siren tone will be activated when auxiliary input is activated.

 $\boxtimes\boxtimes\boxtimes$

ON = Air Horn tone

OFF = Tone which is programmed on Wail push-button

CONTROL PANEL PSRN4CTRL2 **PSRN4CTRL3 PROGRAMMING MANUAL**

SLIDE SWITCH SETTINGS:

- 1. Press and hold Auxiliary Push-Button "1" and "4" until slide switch #2 indicator LED flashes.
- 2. Press Auxiliary Push-Button "1", "2" or "3" depending on which configuration for the slide switch is required.

	SLIDE SWITCH SETTINGS						
MODE		RELAY OUTPUT #1	RELAY OUTPUT #2	RELAY OUTPUT #3	SLIDE SWITCH POSITION		
		√			1		
1	AUXILIARY PUSH-BUTTON 1 IS SELECTED	√	√		2		
		√	✓	√	3		
		V			1		
2	AUXILIARY PUSH-BUTTON 2 IS SELECTED		V		2		
				V	3		
		J			1		
3	AUXILIARY PUSH-BUTTON 3 IS SELECTED		✓		2		
		J	J	√	3		

Setting PA Volume:

- 1. Press and Hold Auxiliary Push-Button "1" and "2" until slide switch #2 and #3 indicator LED flashes.
- 2. Depress and hold PA switch on microphone and press Push-button "1"-"8" depending on volume required. When correct volume is determined, press Radio Rebroadcast and the volume setting will be permanently stored.

LOW	2	3	4
5	6	7	HIGH

BACKLIGHT INTENSITY:

While pressing RADIO REBROADCAST BUTTON, press Auxiliary Push-Button "1"-"8" to adjust backligh intensity. "1" = Lowest intensity, "8" = Highest intensity. Backlight must be enabled by the Gray wire on CN6.



ALTERNATE MODES:

- 1. Press and Hold Auxiliary Push-Button "2" and "6" until Slide Switch indicator #1 and indicator #2 LED flashes.
 - 1. Alternate Horn Ring control: Custom operation of vehicle horn when pressed. Refer to figure below for details.

	ON = Enabled
$\boxtimes\boxtimes\boxtimes$	OFF = Disabled

2. Alternate Horn Ring control option: (Alternate Horn Ring Control must be enabled). Custom operation of vehicle horn when pressed. Refer to figure below for details.

 $\boxtimes \square \boxtimes \boxtimes$ ON = Option 2 $\boxtimes\boxtimes\boxtimes$ OFF = Option 1

	ALTERNATE	ALTERNATE HORN RING CONTROL			
	OPTION 1	OPTI	ON 2		
STANDB	Y OEM HORN	OEM HORN			
LEVEL 1	OEM HORN	0EM	HORN		
LEVEL 2	Air Horn or Wail Button Tone while Pressed *	Tap to Turn On Warning Ton Tap again to Change Warnin Tone. Press and Hold for Ai Horn Tone			
LEVEL 3	Tap to turn ON Warning Tone, Tap again to change Warning Tone. Press and Hold for Air Horn Tone	TONE SWITCH OFF: Air Horn Tone or Wail Button Tone while Pressed *	TONE SWITCH ON: Tap to change Warning Tone, Press and Hold for Air Horn Tone		

^{*} Set in "Other Modes" 6. Horn Ring Standby Tone

3. GUN LOCK SECURITY:

ON = Operator must press Standby button within 1 second after pressing 8 $oldsymbol{ol}oldsymbol{ol}oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}}$ second time delay button to active $oldsymbol{ol}oldsymbol{ol}oldsymbol{ol}}}}}}}}}}}}}}}}}}$ switch OFF = 8 second time delay switch is activated immediately when pressed

OTHER MODES:

- 1. Press and Hold Auxiliary Button "1" and "5" until slide switch #1 and #3 indicator LED flashes.
 - 1. Horn Ring Activation: Determines when pressing the Vehicle Horn will activate siren tone

	ON = Enabled only when slide switch in level position 3	
$\boxtimes\boxtimes\boxtimes$	NFF = Fnahled whenever siren is NN	

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

switch	,
$\boxtimes \Box \boxtimes \boxtimes$	ON = Buzzer enabled
$\boxtimes\boxtimes\boxtimes\boxtimes$	OFF = Buzzer disabled
Speakers diag LED dis turn off secondary	sable: Disabling S2 LED does not or speaker channel
	ON enable S2 LED (200W system)
$\boxtimes\boxtimes\boxtimes\boxtimes$	OFF disable S2 LED (100W system)
Disabled) Activate	ernate Horn Ring Control Must be s the siren tone when operator ses on Vehicle Horn.
$\boxtimes \boxtimes \boxtimes \Box$	ON = Enabled
$\boxtimes\boxtimes\boxtimes$	OFF = Disabled
5. Power Down: Determing input has no voltage	nes siren operation after ignition wire ge ON = Timed Power Down: Siren will power down 10 min. after last Aux Button activity.
	OFF = Immediate Power Down: Siren will go into lowest power state within 10 seconds.
disabled for this funct (Alternate Horn Ring (Control Must be Disabled) ne to output when siren is in standby
$\boxtimes\boxtimes\boxtimes$	ON = Air Horn
	OFF = Wail Tone

7. 8 Second Buzzer alert: Provides audible beep whenever any auxiliary switches are ON or level 1,2, or 3 is active.

$\boxtimes \boxtimes \boxtimes \boxtimes$	ON = Enabled
$\boxtimes \boxtimes \Box \boxtimes$	OFF = Disabled

8. Air Horn Button Output Channels

$\boxtimes \boxtimes \boxtimes \boxtimes$	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 R

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

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CONTROL PANEL PSRN4CTRL2 **PSRN4CTRL3** PROGRAMMING MANUAL

PROGRAMMING MODES

AUXILIARY SWITCH SETTINGS:

Refer to Figure at bottom center for Button and LED locations and terminology

- 1. Press and Hold Auxiliary Button #1 and #8 until slide switch #1 LED flashes.
- 2. Press the button which setting is going to be viewed/changed 1 time.
- 3. Monitor the 5 LED's for the arrow controller to determine setting OOOO- *Arrow Controller (Left, Right, Center, OFF), Dual Output: 1 & 9 OOOO- Alternate Action Switch (Press ON / Press OFF)
- **⊙⊙○○○○** Momentary Action Switch (ON only when depressed) OOOOO- 8 Second ON Time (ON for 8 seconds when depressed)
- ⊙O⊙OO- Level 1 Disable (Turns OFF Level 1 Output)
- ○ ○ - Level 2 Disable (Turns OFF Level 2 Output)
- ● ○ - Left Arrow, Single Output ○○○○ Right Arrow, Single Output
- ○○○○ Center Arrow, Single Output
- ○○○○ Warning Bar Output
 - *Can only be programmed to one button and will disable Left, Right and Center Arrow Single Outputs if they are used.
- 4. Press and release button until desired mode is selected.
- 5. Continue steps 2-3 for any other buttons that need to be programmed.

Default Settings:

Button #1: Arrow Controller Button #2-7: Alternate Action Switch Button #8: 8 Second ON Time

Denotes Factory Default Setting



Auxiliary Push-button to Slide switch mapping programming:

Allows the operator to have the siren automatically turn on auxiliary push-buttons based on the position of the slide switch.

If an auxiliary push-button is programmed to turn ON when the slide switch position is selected, the auxiliary push-button will turn OFF when the programmed slide switch position is no longer selected.

The operator can override the automatic activation of the auxiliary push-button by momentarily pressing the auxiliary push-button.

To program:

- 1. Press auxiliary push-buttons '4' and '5' for 2 seconds until Radio Rebroadcast indicator LFD flashes.
- 2. Move slide switch to desired position.
- 3. Press auxiliary push-buttons '1' '8' and or Siren Control Select as required.

LED ON (GREEN)	Auxiliary push-button or Siren Control Select will automatically turn ON when level switch position is activated.	
LED OFF (RED OR OFF)	Auxiliary push-button or Siren Control Select will NOT automatically turn ON when level switch position is activated.	

- 4. Repeat steps 2 and 3 for other slide switch positions as required.
- 5. Place appropriate button legend over activity indicator for each programmed button.

TONE PROGRAMMING:

- 1. Press and hold "buttons" "2" and "7" for 2 seconds until Slide switch LED'S 1.2, and 3 flash
- 2. Press Control Select to be programmed (Wail, Yelp, Tone, Manual, or Horn). Auxillary button 1 = HORN, button 2 =
- 3. Auxillary buttons 5-8 will determine which tone is to be played when the user presses the button.
- 4. Repeat steps 2 and 3 for each tone button

MANUAL BUTTON TONE DURATION

MOMENTARY: When played solo

LATCHED: When played over other tones.

SIREN AMPLIFIER DIAGNOSTIC INDICATORS:

DIAG	S 1	S2	CONDITION
FLASHING	ON	ON	OVER-TEMPERATURE, (380R ONLY)
FLASHING	0FF	ON	UNDER-VOLTAGE
FLASHING	ON	0FF	OVER-VOLTAGE
FLASHING	FLASHING	-	COMM FAULT - RELAY
FLASHING	-	FLASHING	COMM FAULT - AMP
FLASHING	FLASHING	FLASHING	COMM FAULT -RELAY AND AMP
-	-	-	-
*OFF	ON	-	SPKR 1 IS ACTIVE
*OFF	-	ON	SPKR 2 IS ACTIVE
*OFF	0FF	-	SPKR 1 IS NOT-FUNCTIONING
*OFF	-	0FF	SPKR 2 IS NOT-FUNCTIONING

^{*} SIREN AUDIO BUTTON ACTIVATED (EXCEPT RADIO REBROADCAST)

CONTROL PANEL PSRN4CTRL2 PSRN4CTRL3 PROGRAMMING MANUAL

WAIL CONTROL SELECT

BUTTON #6	BUTTON #7	BUTTON #8	SPKR A	SPKR B
OFF	OFF	OFF	WAIL 1	WAIL 1
OFF	OFF	ON	WAIL 2	WAIL 2
0FF	ON	OFF	WAIL 1	WAIL 2
OFF	ON	ON	WAIL 1	YELP 1
ON	OFF	OFF	WAIL 1	ALERT A
ON	OFF	ON	WAIL 1	HiLo
ON	ON	OFF	WAIL 2	SUPER HiLo
ON	ON	ON	WAIL 2	PIERCER

*TONE SCROLL

SPKR A	SPKR B
WAIL 1	WAIL 2
WAIL 2	YELP 1
YELP 1	YELP 2
YELP 2	PIERCER
PIERCER	ALERT A
ALERT A	WAIL 1

YELP CONTROL SELECT

BUTTON #6	BUTTON #7	BUTTON #8	SPKR A	SPKR B
OFF	0FF	0FF	YELP 1	YELP 1
OFF	OFF	ON	YELP 2	YELP 2
OFF	ON	OFF	YELP 1	YELP 2
OFF	ON	ON	YELP 1	ALERT A
ON	OFF	OFF	YELP 1	PIERCER
ON	0FF	ON	YELP 1	HiLo
ON	ON	OFF	YELP 2	SUPER HiLo
ON	ON	ON	YELP 2	PIERCER

TONE CONTROL SELECT

BUTTON #5	BUTTON #6	BUTTON #7	BUTTON #8	SPKR A	SPKR B
OFF	OFF	OFF	OFF	TONE SCROLL*	TONE SCROLL*
0FF	OFF	OFF	ON	PIERCER	PIERCER
OFF	OFF	ON	OFF	HiLo	HiLo
0FF	OFF	ON	ON	SUPER HiLo	SUPER HiLo
OFF	ON	OFF	OFF	ALERT A	ALERT A
OFF	ON	OFF	ON	ALERT A	HiLo
OFF	ON	ON	OFF	ALERT A	SUPER HiLo
OFF	ON	ON	ON	HiLo	SUPER HiLo
ON	OFF	OFF	OFF	HiLo	PIERCER
ON	OFF	OFF	ON	ALERT A	ALERT B
ON	OFF	ON	OFF	PIERCER	ALERT B
ON	OFF	ON	ON	PIERCER	ALERT A
ON	ON	OFF	OFF	SUPER HiLo	PIERCER
ON	ON	OFF	ON	WAIL 1	WAIL 2
ON	ON	ON	OFF	YELP 1	YELP 2
ON	ON	ON	ON	WAIL 1	YELP 1

HORN BUTTON

HOIII D	<u> </u>				
BUTTON #5	BUTTON #6	BUTTON #7	BUTTON #8	SPKR A	SPKR B
OFF	0FF	OFF	OFF	HORN 1	HORN 1
OFF	OFF	OFF	ON	HORN 2	HORN 2
OFF	OFF	ON	OFF	HORN 3	HORN 3
OFF	OFF	ON	ON	HORN 4	HORN 4
OFF	ON	0FF	0FF	HORN 1	HORN 2
OFF	ON	OFF	ON	HORN 1	HORN 3
OFF	ON	ON	OFF	HORN 1	HORN 4
OFF	ON	ON	ON	HORN 2	HORN 3
ON	0FF	OFF	OFF	HORN 2	HORN 4
ON	OFF	OFF	ON	HORN 3	HORN 4
ON	OFF	ON	OFF	HORN 1	WAIL 1
ON	OFF	ON	ON	HORN 1	YELP 1
ON	ON	OFF	OFF	HORN 1	PIERCER
ON	ON	OFF	ON	HORN 2	YELP 1
ON	ON	ON	OFF	HORN 3	YELP 1
ON	ON	ON	ON	HORN 4	SUPER Hilo

MANUAL BUTTON (SOLO PLAY ONLY)

OFF OFF WAIL 1 FREQUENCY DECREASE WHEN RELEASED OFF OFF ON WAIL 1 IMMEDIATE OFF WHEN RELEASED OFF ON OFF YELP 1 OFF ON ON PIERCER ON OFF OFF ALERT A ON OFF ON HILO ON ON OFF SUPER HILO ON ON ON WAIL 1 IMMEDIATE OFF WHEN RELEASED	BUTTON #6	BUTTON #7	BUTTON #8	SPKR A/B
IMMEDIATE OFF WHEN RELEASED	OFF	OFF	OFF	FREQUENCY DECREASE WHEN
OFF ON ON PIERCER ON OFF OFF ALERT A ON OFF ON HiLo ON ON OFF SUPER HILO ON ON ON WAIL 1	OFF	OFF	ON	
ON OFF OFF ALERT A ON OFF ON HiLo ON ON OFF SUPER HiLo ON ON ON WAIL 1	0FF	ON	OFF	YELP 1
ON OFF ON HiLo ON ON OFF SUPER HiLo ON ON ON WAIL 1	0FF	ON	ON	PIERCER
ON ON OFF SUPER HiLo ON ON ON WAIL 1	ON	OFF	OFF	ALERT A
ON ON ON WAIL 1	ON	OFF	ON	HiLo
	ON	ON	OFF	SUPER HiLo
	ON	ON	ON	

Denotes Factory Default Setting

